Community Formation in the Spanish Colonial Borderlands: San José de las Huertas, New Mexico

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ABSTRACT

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This work is centered on the archaeological site of San José de las Huertas, occupied from 1765-1826 and excavated in 2002-2004. In my historical study of this 18th-century village, I draw upon archaeological evidence, archived documents, and oral historical accounts in order to explore processes of community formation and maintenance as they are revealed through the reciprocal relationship of structure and agency, otherwise known as structuration. Since the performance of social identity is a consequence of community creation, its investigation provides one means through which structuration may be accessed. Through the analysis and integration of the various lines of information, my research contributes to our understanding of the complex relationships that connect objects and places to people and community.

Located in the northern Borderlands of New Spain, Las Huertas was one of several outpost communities established in the mid-1700s to deter American Indian raids on the capital and principal settlements of New Mexico. As a buffer settlement, the village was founded by people with diverse and complex personal histories. The landless colonists who established the community were comprised of families who considered themselves to be culturally Spanish as well as those who were labeled as *genizaros* (war captives taken from various native groups who were then placed as servants in the homes of Spanish settlers and missionaries). As such, the crafting of a local community and its accompanying identity amidst a diverse mix of ethnic, class, gender, and kinship relations was an important part of negotiating daily life on this

frontier, where remote communities faced many challenges and hardships that were particular to their locations.

The range of data sources utilized by this project illustrate that the community of Las Huertas was constructed through social discourses of difference and similarity among informed and strategic social actors as they navigated different contexts: that of the community itself, in their dealings with colonial administrators, in their contacts with the Pueblo and Spanish-American settlements that neighbored the village, and when nomadic peoples attacked their homes and property. Kinship, age, gender, and religion comprised the principal vectors of social identity crucial in community formation, while status and ethnic affiliation (as defined by *casta* categories) seemed to be of greater concern to colonial officials and clerics. Las Huertasanas' associations with their neighbors also tended to be shaped through kin networks, in addition to economic transactions. But it was membership within the community of Las Huertas that served to contextualize social identities as they were enacted in all situations.

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Dedication

This work is dedicated to the community of Placitas, New Mexico and their ancestors. Many thanks for letting me delve into the history of these extraordinary people and the place they lived.

Chapter 1: *Research Overview*

Introduction

I have long been interested in colonial circumstances and social identities. Consequently, when Professor Nan Rothschild and I were first presented with the opportunity to work at San José de las Huertas in New Mexico, I was very excited to investigate this multiethnic community. My prior work on colonial Native American settlements led me to believe that ethnicity and/or other social differences must surely have been expressed, and were openly discernible, in the material record. But during our research at Las Huertas, I quickly realized that things were more complicated than I initially anticipated. What I came to discover through this project was that Las Huertas, along with a number of other Indo-Hispano[1] communities in New Mexico, was a site of ethnogenesis (after Frank 2000). And though this dissertation underscores processes of community construction, the fact that Las Huertas became a site of ethnic identity formation implicates its historical significance.

Centered on the village of San José de las Huertas, which was occupied from 1765-1826, my research draws upon archaeological evidence, archival data, and oral historical accounts in order to investigate the processes involved in the formation and maintenance of community. Linked to these processes is social identity; in particular, the differential display of specific aspects of one's social identity. Depending on with whom they were engaged, be it colonial administrators, the clergy, or their Pueblo and Indo-Hispano neighbors, the villagers of San José de las Huertas invoked different social identities—usually those pertaining to ethnicity and class or status being of greater significance in their interactions with outsiders. These 'outward'

[1] This term is used by Enrique R. Lamadrid to refer to the historical political, social, and economic ties that existed (and the intermixing that occurred) between Hispano colonists and Pueblo Indians (Gandert 2000).

projections of identity had little salience in the day-to-day lives that took place within their village. In fact, the analysis and integration of parallel lines of data suggest that this community was structured and maintained through kinship ties, codified behavior as carried out through daily activities performed in and around the village, the religious rites that commemorated the principal stages of life (such as birth, marriage, death), and the looming threat of violence that bound villagers to one another on lands that were demarcated for them by their Crown.

The nature of this village was, in some measure, fashioned by the historical forces that brought it into being. The Pueblo Revolt of 1680 expunged the fewer than 2500 Spaniards living in the province of New Mexico, causing them to retreat to Paso Del Norte (or present day Ciudad Juárez). When the colonists returned to the area following Diego de Vargas's reconquest in 1692, the demography of the province was changed. Less than forty of the exiled families returned with de Vargas. Instead, the newcomers that resettled the region had been born in Mexico, many of whom were partly descended from Mexican Indians. Several of these independent colonists also possessed skills that included mining, weaving, blacksmithing, hat making, and leatherworking (Swadesh 1974:14-21). They were drawn to the area by the prospect of land ownership and the development of trade with the various native groups that occupied the region as well as other settlements within the northern borderlands.

Though various types of settlements (such as *villas, haciendas,* and *ranchos*) emerged following the reconquest of New Mexico, this thesis focuses on what ethnographers and historians have frequently labeled as *plazas* or *placitas* (Simmons 1969; Swadesh 1974; Kutsche and Van Ness 1981). The *plaza* settlements that arose during this period were essentially corporate community or multi-community organizations that resulted from the interplay of Hispanic cultural traditions and the necessities of coping with northern New Spain's frontier

environment. The uncertainties associated with agro-pastoral subsistence activities in a semi-arid (and often marginal) environment, coupled with the settlers' need to protect themselves against the pervasive threat of nomadic Indian hostilities, placed a particular importance on coordinated cooperative endeavors in nearly every aspect of daily life (Van Ness 1991:251-252).

As a result, intermarriage, fictive kinship, a shared religion, and common geographic origin were important factors in structuring rural Indo-Hispano communities. Moreover, the sharing of anxieties and hardships in an isolated and often hostile environment was a significant unifying force that further shaped community formation. Examples of the kinds of violence and terror experienced by the villagers of San José de las Huertas, coupled with the determination to survive in one of New Spain's colonial frontiers, are in evidence throughout the oral historical record.

Informant Catalina Gurulé began her story, "Maybe it was in the days before people have a saint. I don't know." In 1938, Catalina (45 years-old and a direct descendant of one of the Gurulés who helped found San José de las Huertas) related the perils that faced her ancestors to the Work Projects Administration worker that was intent on capturing some of New Mexico's rich and textured past. She continued,

> It was over a hundred years ago and the people of Las Huertas had a hard time keeping their goats from the Indians. Many times when they had big flocks the Indians came and fought with them and drove off the goats, but something told the people the coyotes would help them. So the men went to the mountains where the boys herded the goats, and made holes. Then they covered the holes with boughs from the pinon trees. The men told the boys to run and hide in them whenever they heard the coyotes talk loud to the dogs. Then one day while the boys herded the goats, they heard the coyotes away up in the mountains howl and howl and say, "Yip, yip, yip." They raised a big noise. The dogs heard them and they howled and howled and told the dogs down by their houses that the Indians were coming because they told them so (Rebolledo and Márquez 2000:118).

In response, the boys ran and hid in the holes they had made. The men, armed with bows and arrows, climbed the mountains where they hid behind trees and rocks. Looking for animals to

capture, the Indians also went up into the mountains. When the Indians drew close, the men of the village shot arrows at them. The Indians could not see from where the arrows came. Scared, they ran back down the mountain with the men in pursuit. They followed the Indians downhill through Las Huertas Canyon where they saw a herd of goats the Indians had left. A hard fought battle ensued and the men of Las Huertas drove the Indians away, claiming the herd and taking it back into the mountains. "The warning of the coyotes saved their own flock and gave them another flock" (Rebolledo and Márquez 2000:118).

Yet on another day, the villagers of Las Huertas were not so fortunate. Teresita Gallegos de Baca (34 years of age at the time of her narrative and descended from Las Huertas as well) recounted a different tale of a naïve boy who paid a terrible price for his foolishness. It all began one day when,

> Lucas and Tomás and Juan sat in the shade of a piñón tree eating the roasted corn they had brought from home for their lunch. Their goats were grazing nearby. All at once Juan caught sight of an Indian. He was so frightened for a moment he could not speak, then he said "Look, the Indians!" The boys scrambled off on all fours to the nearest arroyos. Not for just one arroyo. No, their parents had told them to never, never hide in the same arroyo, but for each boy to hide in a different arroyo and then it might be that the Indians could not find them all. So into different deep arroyos jumped the young shepherds, and sat very still.
>
> Three Indians circled the herd of goats and hunted for the shepherds. Alas, they found Lucas and dragged him from his hiding place and started off with him. One boy would have to do, for there were no others in the arroyo. Poor Lucas fought and tried to get away, but they dragged him along with them. Tomás, in his joy at being missed by the wild Indians, jumped up and down and shouted, "Tú no mi hallarse! Tú no mi hallarse!" (You did not find me! You did not find me!) But his joy was short lived. The Indians returned and routed out the poor simple one from his refuge and carried him off with Lucas into slavery (Rebolledo and Márquez 2000:132-133).

Both narratives illustrate just some of the hazards that faced the inhabitants of this rural settlement located within the borderlands of 18th-century New Spain. Las Huertasanas were not only at risk of losing valuable food supplies, in the form of crops and livestock, but also their children to slavery as well as their lives in defense of their community. For in this territory there

existed a thriving captive exchange economy in which Puebloan, nomadic Native American, and colonial settler communities were engaged. Fueled by increasing demands for labor and episodic warfare, the slave trade that had developed throughout the colonial period thrust these groups into a complicated network of capture, servitude, and kinship (Brooks 2002; Rael-Gálvez 2002).

As the provincial slave trade and narratives show, San José de las Huertas was a community that existed under the omnipresent specter of violence. It is the aim of this study to explore the social processes (and forces) that served to create and sustain this borderland community. Toward that end, we must first consider how communities have been envisaged in prior anthropological and archaeological research.

Defining Community

> "*Community* has a multiplicity of meanings and connotations. It is a social relationship, a sense of interdependence and belonging" (Hegmon 2002:236).
>
> At its simplest, community is the conjunction of "people, place, and premise" (after Watanabe 1992).

Community studies have a lengthy history in the social sciences. As such, ethnographic and sociological research on the community has yielded a number of perspectives and theoretical models on the nature of this particular social unit. Within the discipline of archaeology several studies have strived to advance our understanding of communities, particularly prehistoric ones. These works have provided a critical examination of the community concept and identified distinctions in how it has been used within archaeological research (e.g. Adams and Duff 2004; Adler 2002, Canuto and Yaeger 2000b; Kolb and Snead 1997). A further benefit of these and other examinations has been the endeavor to go beyond the community concept as a heuristic device and deconstruct its theoretical underpinnings (Hegmon 2002; Isbell 2000).

Often applied to more than just a village or site cluster, archaeological deliberations on community have engaged a wide range of approaches. The term has been used to describe differing spatial scales, from individual sites (residential communities) to larger settlement systems (political communities). Shared residence in which community members come into continual personal contact with one another has been another critical theme in community studies (Kolb and Snead 1997; Wills and Leonard 1994). Other works have given priority to interaction over space, focusing on the various kinds of interactions (political or economic, for example) that took place among communities (Rogers and Smith 1995). There also has been an effort to illustrate the bonds of community membership, whether they were based on a shared agricultural system or communal ritual facilities. Some studies have emphasized the form and function of communities, assigning them a number of attributes (e.g. co-residence, shared labor, communal ritual practice) that are likely to be recognizable in the archaeological record. Whereas, an alternative perspective is concerned with how communities are constituted (Adler 2002; Canuto and Yaeger 2000a). This approach calls attention to the processes of interaction within communities; processes that are likely not to be found in exactly the same fashion within every type of community (Hegmon 2002).

Finally, there are the studies that focus on the analytical foundations of community as opposed to those concerned with its conceptual understandings. This category identifies the opposition between what have been termed "natural" and "imagined" communities (Isbell 2000). Its roots stemming from mid-20th-century ethnography, the natural community is an idealized concept that is characterized by its spatial boundedness within which intergenerational members know and depend on one another, unconsciously accepting the same structural rules, and sharing a homogenous sense of solidarity without segmentation or factionalism (Arensberg and Kimball

1965; Redfield 1955). Thus, communities are a natural unit of social organization with distinct organizational and behavioral properties. The principal drawback of this approach is that it assumes that communities exist and that they are, or were, organized in predetermined ways (Varien and Potter 2008:3).

In order to avoid using community as an essentialist concept, a number of researchers have discussed community as imagined in the minds of its members (Anderson 1991; Cohen 1985; Isbell 2000; Preucel 2000). The imagined community is

> inhabited by diverse social actors who regularly exercise their agency. As such, it is a potentially volatile place where social relations are continually contested. Further, it is a place inextricably connected to the larger, outside world. The imagined community is not static, but rather the result of dynamic, fluid processes in which community members interact and pursue goals that are contingent, sometimes contradictory, and constantly changing" (Varien and Potter 2008:3).

Subsequently, from the vantage point of this concept, community becomes a symbol of identity and of social differences. In practice, the application of imagined communities involves the interpretation of discourses of identity with those of community. This is achieved partially through the analyses of symbolism as well as the potentially contrasting messages conveyed by different classes of material culture (Hegmon 2002:268). However, one significant disadvantage of the imagined community perspective is that it is difficult to generate a concise definition of the term.

With the aim of circumventing some of the pitfalls posed by the natural and imagined community models, Varien and Potter (2008) consider the social production of communities with respect to the analytical tools of structure and agency. For them,

> Communities are an appropriate context for this examination because in small-scale societies they are a nexus for face-to-face interactions, which are the primary means by which the rules and resources that structure society are both reproduced and transformed. These interactions are also a primary context in which individuals, as strategic actors, exhibit agency and construct their social identities (Varien and Potter 2008:1).

The authors further conclude that settlement clustering is a key component to understanding communities socially. Explicit in their definition, therefore, is what Lipe (1992:3) has called first-order, face-to-face communities. As such, community refers to local residential communities that are small enough for regular interaction among people who are physically co-present. The utility of employing both agency and structure with this definition is that it allows for varying scales of analyses in conjunction with the examination of *process* within all first-order communities. Nonetheless, Varien and Potter (2008:5-6) do not fail to recognize that communities cannot be divorced from the larger social contexts to which all people and first-order communities belong, or what have been metaphorically labeled the "larger community of interests".

Given their use of structure and agency in combination with that of community, it is worthwhile to review their treatment of the terms. Following Giddens (1979, 1984) and Bourdieu (1977, 1990), Varien and Potter (2008:6-12) view agency as the choices made by people when they take action, generally as they attempt to realize specific goals. Yet agency also includes choices that are nonreflexive and created by an individual's *habitus*. Since *habitus* consists of the of the unconscious embodied practices an individual acquires by virtue of being raised in a particular social milieu, then agency includes actions that are not exclusively intentional (Bourdieu 1977). Agency, in all its forms, is constrained and enabled by structure, because agency and structure are inseparable parts of a single process. Structure is comprised of the rules and resources available to strategic actors; while agency is the appropriation of those rules and resources in order to take social action (Giddens 1984). It is this recursive relationship between rules, resources, and social action that dialectically reproduces social systems.

Capitalizing on the extensiveness of these models, I view historic communities as having at least three fundamental components. First of all, community is located in the regular face-to-face social interaction among people who are physically co-present (Murdock 1949; Varian and Potter 2008). Another characteristic of community is a shared sense of membership that is rooted in the conceptualization of geographic place (Graves 2004; Ortman 1998). Communities were located in a place—a locus of lived experience and social construction, where people made a tangible living and developed experiential understandings of their surroundings, even as they materialized conceptual understandings of social memory, identity, history, and the nearby landscape (Ortman 2008:126). Thus, there are mental and geographical elements to community. Lastly, community includes the level at which the interplay of structure and agency occurs, or what Giddens (1979, 1984) calls structuration. Communities were the nexus of daily life, and the interactions between members continually reproduced structure, even as they provided a stage upon which individuals could reinforce, resist, or revise this structure through their actions (Ortman 2008:125).

Although place-based experiences and understandings were the basis of social action, the local contexts to which individuals responded were also influenced by larger regional forces that individuals may not have perceived or fully comprehended from their local position (Soja 2000:3-12). As such, we must remember that while individuals acted locally, they were inevitably being affected by larger social, political, and economic forces. This was particularly true for colonial settings, where different cultures collided and actors were forced to navigate the continually-shifting power dynamics.

The performance of some aspects of social identity, as well as the construction of its meaning, is a consequence of community formation and maintenance. Also of significance are

creolization and *hybridity* because they offer frameworks within which to study the creation of identity as it originates from cross-cultural interactions. As a result, these conceptions have had particular resonance within colonial studies.

Pondering Social Identity, Creolization, and Hybridity

Since its first introduction as an analytical term in the 1960s, identity has been under widespread discussion within a variety of disciplinary areas in the social sciences and humanities. Initially linked with ethnicity on the one hand, and to sociological role theory and reference group theory on the other, the notion of identification was taken from its psychoanalytic context where the term had been introduced by Freud. Concerned with "the self", the field of symbolic interactionalist sociology increasingly employed the term identity, but it did not become a popular concept until it appeared in the writings of sociologists Erving Goffman, working on the periphery of the symbolic interactionist tradition, and Peter Berger, who drew from social constructionist and phenomenological traditions (Jenkins 1996; Brubaker and Cooper 2000). However, it was Erik Erikson (1968), a developmental psychologist in the Freudian tradition, who linked the individual to the group by characterizing identity as a process located within both the individual and his or her culture.

More recently archaeology has entered the discussion on identity. Beginning in the 1980s, the archaeological debate focused upon single-issue social categories such as gender, class, and ethnicity. By the 1990s, however, the discipline began to consider the merging of multiple categories of identity to be both possible as well as a productive mode of analysis (Díaz-Andreu, et al. 2005; Meskell and Preucel 2004; Hodos 2010). What the literature on identity has revealed is that it is an ambiguous framing concept for social and personal categorization, and

that inferring dynamic senses of self and society in symbolically multivalent material things poses a significant challenge. Furthermore, archaeologists have used identity in various ways,

> to invoke particular self-understandings, mark collective categorical unity (e.g. ethnic groups), fashion hyper-contextualized senses of selfhoods, or simply refer to an analytical group constructed for archaeological convenience. Many of these notions of identity are intended to refute essentialism, rejecting the suggestion that selfhood and collectively are determined by objective historical, geographical, cultural, structural, or biological realities (Mullins 2011:115).

This tactic strives to underscore how people actively define themselves and others, but identity archaeologies are still forced to acknowledge that selfhood and collectives are linked to power and structural relations.

Brubaker and Cooper (2000) note that identity has become overburdened. Not only does it serve as a category of practice, but also as a category of analysis. As a category of practice, identity is implicated in everyday life as actors use it to make sense of themselves, their activities, and their commonalities with, as well as differences from, others. Identity is also implicated in identity politics as political engineers sway people to understand themselves and their circumstances in a particular way, and to organize them into collective action along certain lines. Their concern is not that identity is employed in analysis, but how it is used, observing that the uncritical adoption of categories of practice as categories of analysis reproduces and reinforces those categories. Again, identity continues to be an ambiguous term embodying contradictory and heterogeneous definitions—its theoretical constructions encompassing two extremes of thought (essentialist and constructivist) and many diverse positions in between (Grossberg 1996; Hall 1996; Newman 2007).

In response to this dilemma a number of authors have begun to view social identity as a processual phenomenon (Casella and Fowler 2005; Cipolla 2008, 2012; Haley and Wilcoxson 2005; Jones 1997; Meskell 2001, 2002; Newell 2009; Voss 2008). Such work draws attention to

the fact that schemes of social classification result from the engagement of subjects with societies, making identities fluid and highly situational. Accordingly, identities are simultaneously controlled and out of control, exuded and absorbed, actively forged and slipped into, and often tethered to larger political frameworks and power dynamics. Moreover, they are constructed through diverse narratives and myths drawn from specific patterns that are embedded in historically situated social relations of power, exploitation, and oppression (Bhabha 1994; Brighton 2009; Gans 1995).

One significant insight gained through ethno-archaeological research over the last 20 years is that ethnic (or similar vectors) of identity are not always important, nor do they always have strong materialistic expressions (Emberling 1997:311-313; Jones 1997; Meskell and Preucel 2004; Shelach 2009:80). Consequently, finding evidence of a society in which ethnic (or other group) identities were not visible in the archaeological record is just as important as finding the opposite. As investigators of the past, we need to be careful not to assume that the classificatory categories of identity (i.e. Western and modern) we now recognize did in fact exist during the time period we are examining. Neither can we assume that they were equally important at all times throughout history. Rather, we should try to address the reasons why at a certain time and place particular vectors of identity became important, or conversely, were not important.

In order to avoid a normative perspective on the past, this study views identity as a processual phenomenon situated in social practice. Even the most private of identities are not imaginable as anything other than the product of a socialized consciousness and a social situation. Conversely, the most collective of identities must in some sense exist in the awareness of individual actors. Identity is formed as a dialectic between internal and external definitions

that operate in varying ways at the individual, interactional, and collective levels (Jenkins 1994; 1996). There is also a significant difference between self-identification and the way in which others identify and categorize people—what might be seen as the relational versus the categorical (Brubaker and Cooper 2000).

In sum, identity is a social construct that is fluid and historically situated. It is multifaceted, context specific, and subjective. Social identity is given meaning through social relations created by a frame of reference of shared cultural codes and collective history (Brah 1996:21, 47; Hall 1990:223; Newman 2007). It is a concept of "self-knowledge" defined by belonging to a group (or groups) that provides a sense of place in the world and the material and emotional significance attached to that membership (Ashmore et al. 2001; Comaroff and Comaroff 1992; Woodward 1997). Consequently, identity is always in the process of being created and recreated.

Trying to make sense of culture contact and intercultural interactions, along with the inevitable cultural transformations that occur, scholars have employed the terms of creolization and hybridity (Alt 2006; Cusick 1998; Deagan 1973, 1983, 1996; Ewen 1991, 2000; Ferguson 1992; Liebmann 2008; Lightfoot 1995; Mouer 1993; Gundaker 2000; Webster 2001; van Dommelen 2005; Voss 2005). Applied to people and their resulting material culture, creolization fundamentally refers to "the forms and dynamics of cultural change that occur over time as phenotypically, religiously, and culturally heterogeneous peoples come into what is commonly known as 'culture contact' and undergo the acculturation that it engenders or demands" (Khan 2007:653). Creolization serves as both a model that describes historical processes of cultural change and contact, and as an analytical tool that interprets them (providing "a model of" as well as "a model for" [after Geertz 1973]). The majority of approaches to

creolization consider it a product of colonialism, particularly as it pertains to the "socially engineered assembling of disparate ethno-linguistic groups under conditions of coerced labor" (Khan 2007:653).

Loren (2000:85) successfully calls attention to the fact that creolization in the colonial world cannot be disconnected from relationships of power and dominant structural forces. She frames creolization as a process of identity fabrication "at the intersection of colonial policies and practices," constructing multiethnic identities "in the context of imperial rule and control." Imperial leaders deemed it necessary to construct social (and visual) boundaries between ruler and ruled, resulting in policies that impacted the everyday lives of colonial subjects (Pagden 1987). But, the daily actions of these subjects (exhibited in cuisine or style of dress, for example) often ran counter to what the monarchies prescribed, as individuals constituted social identity in quotidian practices by using material culture in seemingly inconsistent combinations in dress, diet, architecture, religion, and other daily routines (Loren 2000, 2008). Thus, creolization can be seen as a tension between dominant state and ideological definitions of appropriate identity, and the concrete everyday practices of individuals, which frequently ran counter to those dominant ideals.

In addition to grounding creolization in concrete, contextually distinctive power relations, Dawdy (2000) identifies a range of ways the term *Creole* was historically deployed in more complex terms than straightforward cultural mixing. A significant aspect of Dawdy's study is that she locates creolization in time (or rather through time) and place, illustrating the historical complexities of an ever-transforming ethnic identity. The result is that she demonstrates creolization to be a dynamic process of social change, arguing against reducing it to the mere merging of cultural totalities. Because creolization serves to capture multivocality in unequal

relations of power, it is not surprising that this term has been paired with agency (Khan 2007; Worth 2012). After all, the concept of creolization returns a degree of agency to the individuals and groups who might otherwise be viewed as unwitting pawns in the colonial clash that marked culture contact between two disparate worlds, specifically that of the Old and New Worlds.

Of further concern to archaeologists is the application of creolization and hybridity to material culture. Both have been used to describe objects combining local and foreign cultural elements as well as the specific social processes that generate these material novelties. One example of this includes how men and women differentially integrated colonial practices, which depended on their community participation (Deagan 1983; Lightfoot 1995). Hybridity and creolization are often applied concurrently in reference to objects with mixed cultural origins. Recent criticisms of their overuse to re-describe the recombination of signs and forms have some scholars emphasizing the need to differentiate between the two concepts and their material correlates (Alt 2006; Liebmann 2008; van Domelen 2005; Yao 2012).

Creolization is conceptualized as the mixing, borrowing, or assimilation of traits in order to create new combinations; whereas hybridity emphasizes invention. Hybridity results from the production of something new that may not reference its origins in any obvious way, and therefore cannot be reconstituted into those original parts (Alt 2006:292). Thus, creolization and hybridity reflect different intensities of cultural entanglement. Creolization studies have stressed the localization of foreign attributes of material culture. In contrast, hybridity has assisted archaeologists in transcending the dichotomies of *local/us* or *foreign/other*, imagining composite cultural practices as representative of new cultural identities.

Nevertheless, some caution that using hybridity across multiple scales of interaction (such as migration, trade, and imperialism) creates ambiguity (Gosden 2004; Liebmann 2008;

Naum 2010; van Dommelen 2005; Yao 2012). Furthermore, because the term was theorized within the postcolonial condition, its application to exchanges between individuals of preindustrial societies (where relations of domination may be attenuated) has the potential to render it anachronistic and ahistorical (Bhabha 1994; Gosden 2004; Silliman 2005, 2009). As such, Yao (2012:60) stresses that composite material objects "are not always fluid in meaning and intended for transcultural interpretation. What appears hybrid in form may not be *hybrid* in action."

Having discussed models of community and the development of identity within colonial contexts, I turn my attention to research that has been conducted on Hispanic villages. A brief review of the ethnographic literature on Spanish-American villages in New Mexico is requisite for this project because they are the extant product of settlements like which emerged during the Spanish colonial period. San José de las Huertas and its descendant community of Placitas provide such an example.

Imagining Spanish-American, or *Hispanic*, Communities

> "The basic cultural fact of traditionally Spanish American[2] life is the village. To be Spanish American is to be of a village. There is no keen awareness of special national or cultural identity" (Mead 1953:169).
>
> "Spanish Americans are a village people even when they have a predominately pastoral type of economy" (Kluckhohn and Strodtbeck 1961:193).

Scholars of Hispanic[3] culture have long recognized the important role that the rural village has played in the social organization of New Mexico during its four centuries of Hispanic

[2] Spanish-American refers to those individuals descended from the people who colonized and occupied New Mexico during the Spanish Colonial and Mexican Periods.
[3] Hispanic is used in its broadest sense to denote the peoples and cultures with historical links to Spain. I will use Indo-Hispano, Spanish-American, and Hispanic throughout this thesis to impart different connotations.

occupation (Carlson 1990; Kluckhohn and Strodtbeck 1961; Kutsche 1979a; Mead 1953; Swadesh 1974; Van Ness 1991). Ethnographers writing about Latin American villages in the first half of the 20th century characterized peasant cultures as either kind and noble or anarchic (e.g. Redfield 1930 vs. Lewis 1951). In particular, villages in New Mexico and Texas were thought to be dominated by atomism and factionalism. The society within these villages was described as one in which "the nuclear family represents the major structural unit and, indeed, almost the only formalized social entity. Interpersonal relationships outside of the nuclear family are characterized by contention, suspiciousness, and invidiousness. Moreover, these attitudes and behaviors are normative" (Rubel and Kupferer 1968).

Kutsche (1979b) explains that atomism, factionalism, and other signs of apparent disorganization are local responses to oppression. While the coercion has not necessarily or always been open and brutal, rural Hispanic communities in the American Southwest have suffered the long-range, pervasive, and subtle consequences of a social class and cultural tradition that has lain at the bottom of the social hierarchy for a prolonged period of time. Suggesting that atomism and factionalism have been over emphasized, Kutsche (1979b) draws attention to the structural flexibility inherent within these villages—a flexibility that has allowed them to survive for centuries in the face of considerable obstacles. As such, when the village is faced with a crisis, it organizes tightly to meet it and then gradually falls back towards looser modes (including atomism and factionalism) when the crisis has past.

Cohesive quasi-institutions, values, and customs have been significant in preserving an adaptable village society. Though each one appears to be minor in and of itself, cumulatively they provide the foundation for the community's continued existence. One form in which this flexibility is exhibited is the extended family, or *la familia*. *La familia* functions as a network

promoting the survival of its members in a variety of subsistence situations. Although its heart is always the ancestral village, the family can have residences in a number of other places. Family members may rely on this external network as they earn wages, receive an education, and so on; but they return to the village to participate in seasonal celebrations (Brooks 2002; Kutsche 1979a:12). The community irrigation system, or *acequias*, establishes an extra-familial institution that provides additional organization. The ditch association aids in the sharing of labor costs, allocates resources, and resolves disputes. Another is the penitential *cofradía* (brotherhood), which serves to socially integrate village members and as a mutual aid society (Kutsche and Gallegos 1979; Rodríguez 2006).

Of particular interest for my study of San José de las Huertas is the idea that Hispanic villages have largely retained their standing as corporate communities. Wolf (1955) was instrumental in articulating the broader anthropological significance of corporate communities, but one element of his definition has limited its usefulness. He implied that a fundamental feature of corporate communities is that they are "closed", by which he means that one function of the community's structure is to maintain clearly defined defensive boundaries (physically, socially, and culturally) between itself and the outside world. Not surprisingly, this notion has been challenged (Aguilera 1978; Keatinge 1973; Van Ness 1991). As such, a community does not have to be closed in order to function corporately.

It may be viewed as corporate to the extent that the domains of interpersonal relations, individual identities, and distinctive cultural traditions are contained by the boundaries of the community (Aguilera 1978:8). Most corporate communities exercise a considerable degree of legal and political control over their communal territory and its natural resources. Even though the state typically enjoys the ultimate right of domain over a community's territory, the

community holds greater tenure rights over and against other social groups and individuals, both within and outside of the community. Additionally, the social organization of the community is characterized by a high degree of integration and cooperative communal effort. Subsistence activities are achieved through collective decision making and different forms of communal labor; such as plowing, planting and harvesting crops, grazing livestock, and so on. Nevertheless, some economic behaviors may be carried out by households or individuals (Van Ness 1979; 1991). In times of crisis, whether natural or social, the corporate community takes action and becomes a mutual aid society.

Because the social lives (leisure, recreational, and ritual activities) of its members are largely circumscribed by community boundaries, corporate communities tend to be endogamous. In addition, community religious symbols and ritual activities are oriented toward maintenance of the corporate structure, serving to symbolically reaffirm community ties and the individual's identification with the community (Van Ness 1991:16). Despite the boundedness of corporate communities, members often maintain social, economic, and political ties beyond the community through networks of kinsmen, ritual kin, friends, and membership in various associations. Rather than threatening the corporate community, these extra-community ties are essential in sustaining beneficial relationships with surrounding communities (Van Ness 1991).

To some degree, corporate communities in New Mexico have their origins in Spain. Traditionally, *pueblo* indicated a human community based on place, as it referred to both a physical place in the world as well as the people who belong to that place. Consequently, people, society, and geographical place are integrated in Spanish thought. Historically, the Spanish tended to live in compact settlements, with only a few individuals occupying isolated

farmsteads on the outskirts of the community (Van Ness 1991:22). Thus, the *pueblo* was apt to be a centralized community.

Corporate villages in Spain are largely autonomous, administering a range of resources and facilities; such as water, pasture, woods, ovens, and roads. When faced with common concerns like famine, property loss, sickness, and death, the community acts collectively as a mutual aid society. Herd sizes are regulated as is access to pasture lands. In addition, the community oversees irrigation in the villages where it is practiced. The boundaries of the village not only demarcate economic territories, but also help to define political and religious identities. Every village has its own patron saint and calendar of religious feast days that are incorporated into the annual cycle of village activities. Thus, religious practices work to reinforce the communal morals and sentiments that foster cooperative endeavors. However, corporate communities in Spain are not "closed" as members foster systems of relationships that extend to other communities in their region (Van Ness 1979; 1991).

It is doubtful that native Mexican community forms had much affect on Spanish colonial village formation in the American Southwest seeing as the corporate peasant community documented by ethnographers in Mesoamerica was a product of Spanish colonization. The Spanish Conquest significantly disrupted native lifeways. Epidemics devastated many pre-Columbian settlements causing populations to migrate to other areas; even as the Spanish re-organized villages for the purposes of Christianization and to co-opt indigenous labor for economic ends. Recurrent insurrections, some of which continued into the 20th century in places, further influenced forms of community organization (Foster 1988; Lewis 1951; Redfield and Rojas 1934; Wolf 2010). Consequently, commonalties between peasant communities in New Mexico and Mesoamerica (including their corporate nature) were the result of similar processes

of Spanish colonization coupled with the particular historical trajectory of the regions in which these communities were founded.

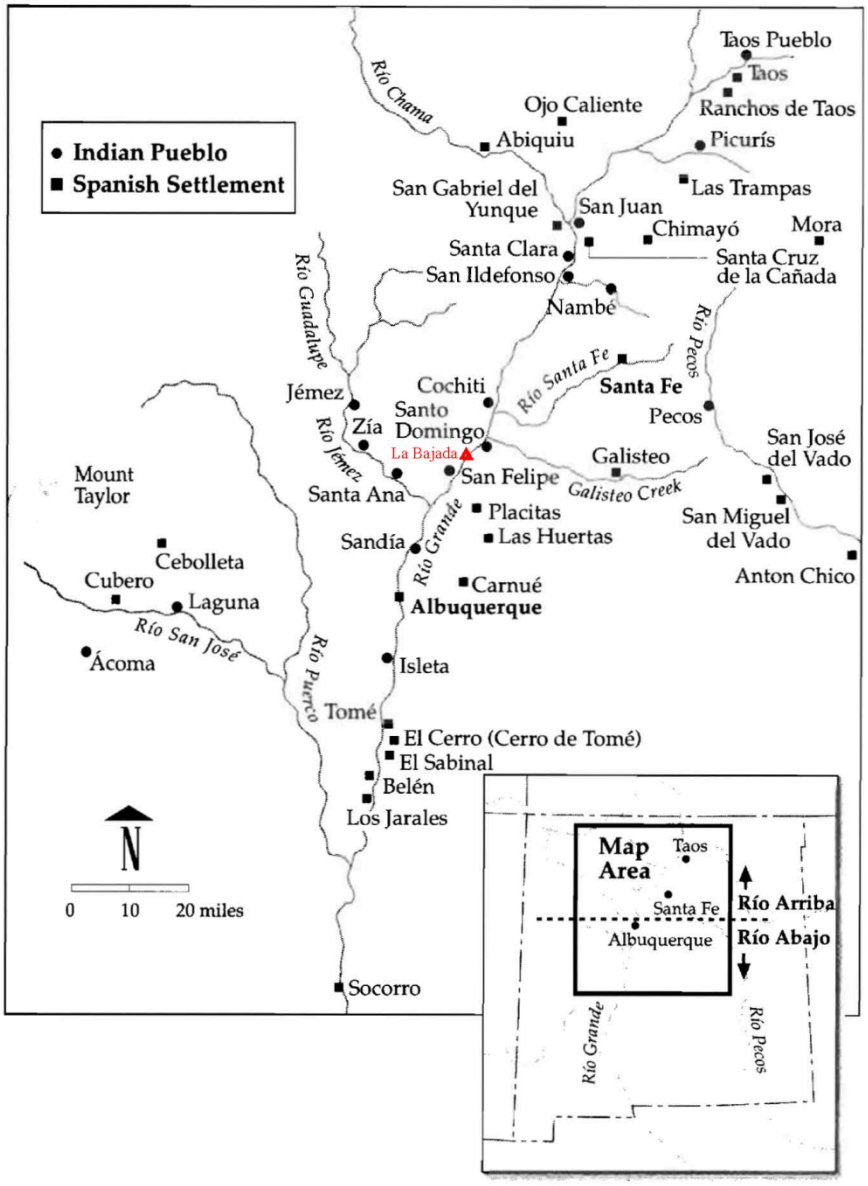


Figure 1-1: Map of New Mexico circa 1800 (taken from Brooks 2002:3)

Regardless of the various studies on Hispanic villages that have been conducted throughout the American Southwest and Mexico, 20th-century ethnographers have found the

villages of northern New Mexico particularly compelling given their relative resistance to external forces and general suspicion of outsiders. On the whole, these communities retained their corporate structure over the centuries without being completely closed or homogeneous. Due to similarities in social structure and environmental constraints, studies (e.g. Carlson 1990; Kluckhohn and Strodtbeck 1961; Kutsche 1979a; Mead 1953; Swadesh 1974; Van Ness 1991) of this region (generally referred to as the Rio Arriba District) provide the best comparative dataset for 18th-century village life at Las Huertas, despite the village's location in the Rio Abajo District. Villages in the Rio Arriba generally sustained their community cohesiveness to a greater degree than those in the Rio Abajo (that portion of the Rio Grande Valley from La Bajada, between Cochiti and Santo Domingo Pueblos, south to El Paso) during the 18th and 19th centuries.

Two main factors influenced the decline of corporate *plaza* communities in the Rio Abajo. One was a greater dependence on agriculture over herding, which was practiced on a family rather than community basis. Concurrently, the large expanses of high plains adjacent to the Middle Rio Grande region eventually promoted large private ranching enterprises that preempted most of the rangeland. This resulted in ranchers with large landholdings becoming *patrones* over many villagers. Furthermore, many of the settlements on the plains did little or no farming; thus, lacking the corporate arrangements associated with managing a communal irrigation system (Van Ness 1979:43).

A review of the ethnographic literature from northern New Mexico shows that these villages share many commonalities despite variations stemming from environmental and historical circumstances. Village layout (in the form of house distribution) ranges between more aggregated and dispersed, again, depending on the environmental setting and historical

development of the village; but each community has a central plaza or *placita*, a church, and *morada* (the structure used by *penitentes* for their rituals and gatherings). Subsistence activities consist primarily of farming and raising stock. Corporate labor, especially among kinsmen, is used in agriculture as well as the irrigation system. Men will also hunt game to supplement their households. But since World War II, most families earn some wages from labor performed outside of the community (Carlson 1990; Kutsche 1979a; Mead 1953; Van Ness 1991).

As there are no formal political structures, decisions are made by community custom. Ditch associations help to organize the labor required to service the village's *acequias*. Patriarchs from the most prominent extended families of the community supply informal leadership given that their guidance is sought due to their experience, knowledge, and wisdom. The family is the foundation of the social system, and *compadrazgo* (ritual co-parenthood or godparenthood) structures the social relations between families. Social groups tend to divide along gender lines and there is an absence of other formalized interest groups, saving the penitential *cofradía*. There is a constant intercourse within the community of the sharing of news and in the interchange of gifts and services. Newcomers are not fully accepted into the community unless they marry into it, as it is believed that one must have family ties within the village to truly link them to it (Carlson 1990; Kutsche 1979a; Mead 1953; Swadesh 1974; Van Ness 1991).

Every village has its own patron saint, who serves as a kind of companion-protector for the entire community and its individual members. The *santos* are of the village and are both loved and revered. Additionally, the saints incorporate both authority and community; the specific role varying with the situation at hand. The holding of fiestas and celebration of saints' days have always been communal enterprises because such observances could not be carried out

individually. Their symbolism, as well as the ritual activities themselves, reinforces community identity and solidarity (Carson 1990; Mead 1953; Van Ness 1991).

The descriptions of Spanish-American communities as being corporate, spatially bounded, and significant units of social integration suggests that they were viewed and recorded, in part, from a "natural" or behavioral perception of community. But we must keep in mind that many of the structures that function to integrate the community are flexible, allowing it to move between cohesion and factionalism. Communities, even corporate ones, are comprised of actors with differing interests and agendas as well as bonds with those belonging outside of the group. Even in this setting, community is continually negotiated through competing social discourses as actors interface with the structures that comprise a particular community. Moreover, to better understand how communities were socially produced, we need to recognize the differing contexts in which community members chose to employ, or ignore, various aspects of their social identities.

The goal of this thesis is to investigate processes of community formation and maintenance as they are illuminated through structuration, or the dialectical relationship between structure and agency. Because the performance of social identity is a corollary of community formation, its examination provides one avenue in which structuration may be accessed. As such, I will explore the various ways in which social identity was expressed by the villagers of San José de las Huertas in three different contexts: 1) within the community itself, 2) through the villagers' contacts with colonial administrators, and 3) via their associations with the Pueblo and Spanish-American settlements that neighbored the village as well as the nomadic tribes that periodically made forays on their holdings. I suggest that kinship (or one's position within the family unit), gender, age, and religious persuasion (i.e. being Catholic) were the most important

vectors of social identity for community construction and maintenance at Las Huertas. However, it appears that status and ethnic affiliation (as manifested in the form of *casta* designation) were of greater concern when the villagers needed to deal with colonial officials and clerics. The relationships Las Huertasanas had with their neighbors are more difficult to discern given the nature of the data examined in this project, but I believe that they were largely shaped through kinship (either fictive or affinal) and/or economic ties. As for those who invaded their grant lands, community membership was imperative.

Individuals within a society express a myriad of social identities throughout their lives, and perhaps even on a daily basis. At times, and depending on the situation, one identity will be emphasized over the others. Yet, the degree of fluidity with which individuals can manipulate the various components of their social identities depends on the society, culture, and community within which they live. Although no category is totally fixed, a person may easily transition from one social class or ethnic group to another in one society; while those same boundaries may be rigidly fixed in another. Given the socio-political context of the Spanish Borderlands, it is my contention that membership at San José de las Huertas was created through discourses about the quotidian practices that comprised community life. These discourses involved the negotiation, and sometimes negation, of social difference—differences grounded in social structuring principles such as ethnicity, gender, kinship, class, and race (Preucel 2000).

This chapter has introduced the project and defined the essential concepts of community and identity, which are requisite for the investigation of community formation and maintenance at San José de las Huertas. Chapter 2 presents the historical context of the project, the site's history, its environmental setting, and previously-conducted archaeological research. Chapter 3

lays out the methods that were used to collect the archaeological, archival, and oral historical data analyzed in my dissertation. Chapter 4 examines the internal structuration of San José de las Huertas. It considers the material signatures of community, drawing upon oral histories to further elucidate the physical remains and expose the interplay between agency and structure. In Chapter 5, I explore the relationships that existed between the villagers of Las Huertas and the individuals who resided outside of their community. I concentrate on the Las Huertasanas' interactions with their Pueblo and Spanish-American neighbors, the nomadic raiders of the region, and the colonial officials who were responsible for the legal and spiritual lives of the people within the colony. Lastly, Chapter 6 summarizes the findings of this research project, contextualizing it within a larger body of work.

Chapter 2: *Setting and Background*

Historical Context

Frontiers are phenomena of history, emerging and waning as geopolitical landscapes change over time. As such, they cannot be separated from their particular historical circumstances since they are the products of historical forces that cannot be duplicated. The Spanish Borderlands that comprised the northern extent of the Spanish Empire in the Americas were no different. This was a vast territory that encompasses the present Mexican states of Sonora, Sinaloa, Durango, Chihuahua, Coahuila, Tamaulipas, Baja California, and Nueva León in addition to the North American states of California, Arizona, Utah, New Mexico, Colorado, Texas, Louisiana, and Florida. The Spanish 'Borderlands' was initially conceptualized to define not only a geographical region, but a particular way-of-life or shared cultural area as well (Jones 1969).

A number of early studies on colonial encounters in North America refer to "The Frontier" in such a manner that they evoke an image of courageous Euro-American settlers advancing into an empty or barely populated land. Of course, these lands were rarely unoccupied, but the legitimacy of Native American land holdings were not recognized (Rothschild 2003). Frederick Turner (1986) crystallizes this characterization of the Euro-American frontier by describing it as a meeting place between civilization and savagery. Normative and static, Turner's notion of frontier glosses over the many kinds of connections that occurred between "individuals whose identities encompassed not just European and Indian, but also priest, soldier, trader, mother, elder, member of the Bear Clan, and so on" (Rothschild 2003:7).

In contrast, several scholars have espoused the model of frontiers as process (Billington 1967; Green and Pearlman 1985; Kopytoff 1987; Lightfoot and Martinez 1995). This idea recognizes that one important aspect of frontiers is that they are places (not boundaries) in which intersections between diverse cultural systems occur. In sum, frontiers are territorial zones of varying width that stretch across and away from national borders within which people negotiate a variety of behaviors and meanings associated with membership in their countries or territories (Donnan and Wilson 1999). These locales and the people who occupy them have identities which are shifting and multiple, in ways which are both 'multivocal' and 'multilocal' but are to some degree fashioned by the structures of the political entity that governs them as well. They are zones of cultural production, spaces of meaning-making and meaning-breaking (Donnan and Wilson 1994; 1999:64). It is this conception of frontier that best describes 18th-century colonial New Mexico.

Nevertheless, it should be remembered that the perception of New Mexico as a frontier, or borderland, was somewhat dependent on who was doing the observing. Travel accounts and correspondence from clerical and secular administrators suggest that the monarch in Spain, governing officials in Mexico City, and even those who initially settled New Mexico, viewed it as a distant frontier colony. At the other end of the spectrum were the Pueblo and other native groups who occupied the area. For them, it was a center place or homeland. And from the perspective of the rural colonists that lived in this province it was not quite either, being located somewhere in between.

Spanish Imperial Policy in the Northern Borderlands

Spanish colonial strategy changed significantly in the northern borderlands from the initial occupation of New Mexico in 1598 to Spain's loss of the region in 1821. Prior to about 1700, Spanish policy in North America was based on the assumption that there was little mineral wealth (mainly in the form of gold and silver) to be exploited north of the states of Sonora and Nueva Vizcaya. Hence, the Spanish crown, along with the church, was principally concerned with the conversion of indigenous souls in New Mexico (Bannon 1964; 1974; Kessell 1989; Spicer 1989). As a result, there was relatively little non-mission settlement throughout this time period, despite some small farmsteads and a limited number of *estancias* and *haciendas*.

In any case, Spain was committed to the idea of thwarting potential invasion through a program designed to pacify and hold New Spain's northern boundary. As early as the late 16th century, the Hapsburg rulers of Spain habitually pursued a program based more on the notion of religious and cultural conversion than on the use of military force. Since New Spain lacked the necessary military strength to overpower the nomadic peoples of the northern frontier, the royal government used mission communities as an initial line of defense and to represent the Spanish presence in the region. This was because missions were centers of cultural change where native peoples were to be transformed into loyal "civilized" vassals. Some additional support was offered by the presidio, which served to protect the missions during their formative stages (Spicer 1989; Deagan 2001; Williams 1985). The occasional town and a few well-fortified estates privately financed and defended by the landed gentry provided further footholds into Indian territories.

In 1759 major shifts in the Spanish border strategy began, primarily the result of a change in dynastic rule from the Hapsburgs to the Bourbons. A policy based on outright military

conquest was formulated by the Crown in light of the new belief that the interior provinces (consisting of the Californias, Arizona, New Mexico, Texas, and northern Mexico) were increasingly susceptible to raiding by nomadic Indian groups (Williams 1985:115-117). The principal goals of Spanish imperial policy during this period were three-fold: first, to solidify the borders along Spanish America's northern frontier; second, to more completely validate its claims to the land it occupied; and third, to drastically increase settlement within the northern frontier. Unlike other frontiers in Spanish America during the 18th and early 19th centuries, New Spain's northern boundaries were under continual pressure from both inside and out (Spicer 1989; Weber 1992): through internal attacks by unpacified Indians and continual attempts at encroachment by other European powers.

The new policy constructed under Bourbon-ruler Carlos III relied on presidios and buffer communities as its primary instruments. The presidio system was redesigned and the presidio itself was transformed into a more clearly militarized settlement. In the past, presidios had existed wherever missions occurred, but Carlos III did away with this policy. Instead, with the aid of his administrators, he proposed a chain of presidios along the entire length of the frontier. They believed this chain could effectively cut off raiding groups from their bases of supply and lines of communication within the region (Williams 1985; Weber 1992).

However, in 1810 the flow of resources to the Borderlands halted as the central authority in New Spain collapsed. Having declared its freedom, Mexico was now faced with a war of independence. Subsequently, the frontier military situation was neglected and conditions worsened. The northern frontier was left to be administered and defended by local regional centers until the nascent government in Mexico City had stabilized.

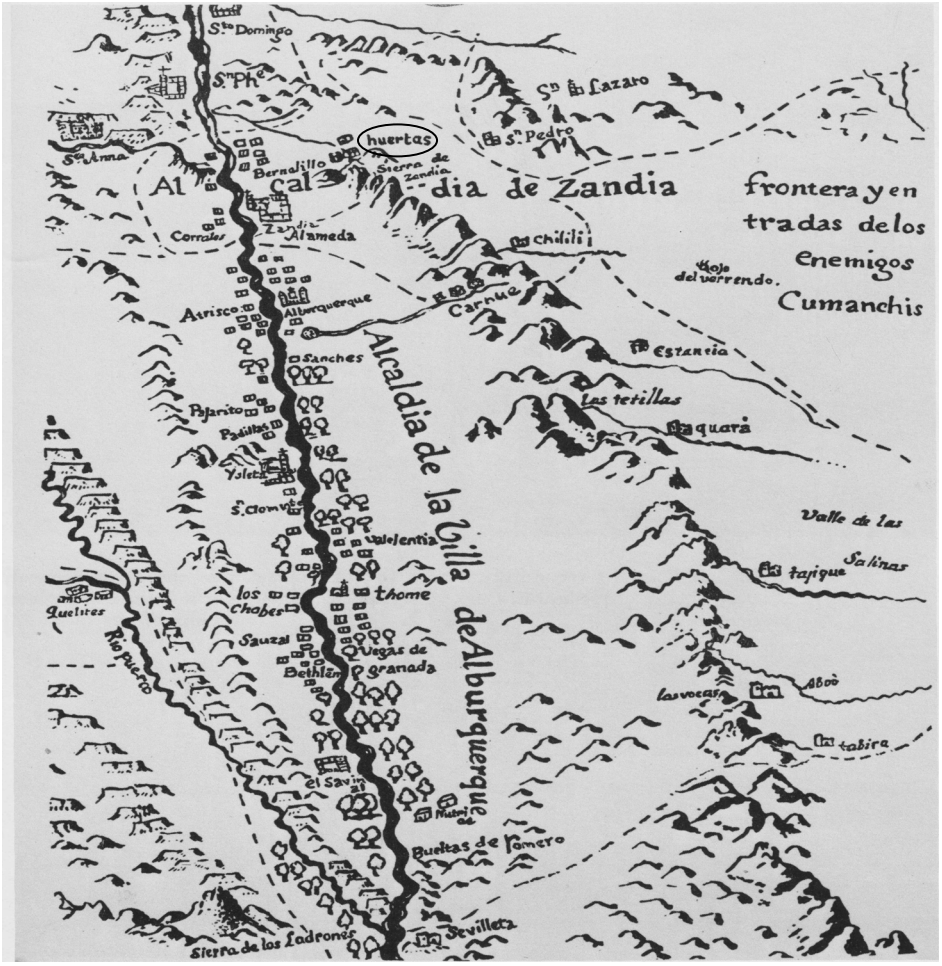


Figure 2-1: Portion of a map created by Bernardo Miera y Pacheco, 1779

Frontier Settlements as Buffer Communities

In the province of New Mexico itself, the local government of the mid-18th century was particularly concerned with the hostile activities of the Comanche, Apache, Navajo, and Ute. This concern led to a policy of establishing buffer outpost communities to deter raids on the capital and principal settlements of the province such as Santa Fe, Albuquerque, and Santa Cruz de la Cañada. Consequently, in the mid-1700s, Governor Cachupín authorized the founding of some early buffer towns: including San José de las Trampas in 1751, Nuestra Señora de la Luz, San Fernando y San Blas on the Puerco River in 1753, Abiquiú in the Chama Valley, Nuestra

Señora del Rosario, and San Fernando y Santiago (Truchas) in 1754. Several of these communities were established on land grants large enough to accommodate not only settlement and agricultural activities, but provide common grazing and forestlands as well (Quintana and Kayser 1980:43).

Buffer communities shared a variety of characteristics related to their buffer function, including their layout, which was ironically similar to the Iberian town plan. They stood in sharp contrast to the dispersed settlement pattern that characterized most other kinds of Spanish colonial communities, like *haciendas* and *ranchos* (de Zéndegui 1977; Simmons 1969). Even villages and towns were fairly scattered. For example, the decentralized settlement pattern in Santa Fe caused concern for the governors of New Mexico, who wanted to fortify the town against Indian attacks. But Santa Fe residents were adamant about remaining close to fields, water sources, and livestock (Bustamante 1989:66-68). In contrast, buffer settlements tended to be more aggregated. The villages were walled with houses placed contiguously around a central plaza. Entrances were restricted, but perhaps large enough to allow wagon traffic. And they often had one or more *torreones*, or two-story towers, built into the outer wall (Swadesh 1974; Van Ness 1991). Furthermore, buffer towns were required to provide for their own defense, as the small garrison of professional soldiers stationed at Santa Fe could not protect the majority settlements in the event of an attack (Weber 1992).

The population of a buffer community generally included soldiers, landless settlers, and some percentage of those detribalized Indians known as *genízaros*. The *genízaro* population originated as war captives taken from both pueblo and nomadic tribes. These captives were then ransomed by the Spanish from their captors and placed as servants in the homes of Spanish settlers and missionaries to convert them to Catholicism and acclimatize them to the colonial

lifestyle (Brooks 2002; Cordell 1979; Horvath 1977; Weber 1992:308). Like other settlers, *genízaros* shared the conditions of frontier colonial life. And although they typically existed at the lower end of the socio-economic scale, they could improve their fortunes through militia service (Quintana and Kayser 1980:44).

History of San José de las Huertas

San José de las Huertas appears to have conformed to the pattern seen in other buffer settlements along the northern frontier. We first learn of Las Huertas, or the orchards, from correspondence between Governor Mendizábal and Diego de Trujillo in 1661. Trujillo had an estancia called *Paraje de las Huertas* located four leagues (or 12 miles) from Sandía Pueblo. Former *alcalde mayor* of Zuñi, he lived on the estancia with his family where he was serving as *Maese de Campo* and Syndic of the Franciscans at Sandía by 1669. When the Pueblo Revolt occurred in 1680, he and his family fled the province. Trujillo later died at Casas Grandes in 1682 (Chavez 1975:108). There appears to have been no lasting occupation of the Las Huertas area over the next 85 years.

Due to the sale of his land, a resident of Bernalillo named Juan Gutierrez petitioned the governor of New Mexico in 1765 to grant a vacant and uncultivated tract of land at the place commonly called Las Huertas to him and eight other large families. It seems that Gutierrez and the families were all working on the ranch, and the loss of it left them without pasture to graze their stock nor land to cultivate (SANM I, SG# 144, Roll 26, Frame 938). Gutierrez had to sell his property, which was near Santa Ana Pueblo, in order to satisfy a debt he owed to Lieutenant General Nicolas Ortiz from a *partido* contract. Under the *partido* system, an owner of a flock lent a specific quantity of sheep and goats to a lessee for a set number of years. The lessee

agreed to herd these animals in return for a percentage of the offspring to be paid each year of the contract. If the animals reproduced in sufficient numbers, the system worked well for both parties. However, this was not always the case as the lessee was responsible for losses to the flock, which could leave him in debt to the owner (Smith 1976:36-37).

In addition to Gutierrez, the other petitioning family heads were Andrés de Aragón, his son José, Javiel Gutierres (*genízaro*), José Antonio Rael, Antonio Archibeque, Miguel Gallegos, Matias Gutierres, and José Gonzales. The parcel of land they requested was bordered on the east by the brow or edge of the San Pedro road (*la ceja del camino de San Pedro*), on the west by some high hills belonging to Las Huertas, on the north by the brow or edge of the Casa Colorada, and on the south by a red hill. With these boundaries in mind, Bartolome Fernandez, the *alcalde mayor* of Santo Domingo Pueblo, confirmed that the grant would not impinge on any existing pueblo lands and would provide ample lands for cultivation and pasturage for the petitioners' stock (SANM I, SG# 144, Roll 26, Frame 938-939).

The families occupied the proposed grant lands while Governor Tomás Velés Cachupín considered their request. He failed, however, to issue a response before he left office. Consequently, in 1767, the residents resubmitted their petition to Governor Pedro Fermín de Mendinueta, which now included 21 families headed by the following: Andrés de Aragón, Visente Sena, Antonia Galban, Matias Gutierres, Pedro Gutierres, Miguel Gallegos, Nicolás Montoya, José Chávez, José Antonio Valencia, Serafin Gurulé, Martin Gurulé, Juan Gurulé, Juan Maese, Francisco Lobera, Antonio Archibeque, Antonio Gurulé, Juana Baldes, Alberto Montoya, Juan Garcia, Jose Garcia, and Pedro Garcia Jurado. This petition describes the settlers' progress after two years:

> we have settled in the said place in good faith and with the consent of Your Excellency's predecessor…having broken lands and placed them in a state of cultivation, and built

> houses, the most of those being of adobe, for our protection against the inclemencies of the weather and the savage enemy surrounding us, trusting that Your Excellency will give us real possession…We will all of us endeavor to cultivate more lands, and to fortify our dwelling houses for greater security and for the future increase of our property, as well of our grain and other supplies necessary for the security and support of said settlement (SANM I, SG# 144, Roll 26, Frame 939).

After reviewing all pertinent documents, Governor Mendinueta confirmed the San Antonio de las Huertas Land Grant on December 31, 1767 on the condition that "they make the settlement in accordance with the provisions of the sovereign royal laws." This entailed forming a plaza with adobe houses laid out in such a manner as to permit sufficient space for each house to have a corral for its livestock. In addition, the layout around the plaza was to be large enough to allow for street openings should the settlement grow. To guarantee the villagers united defense against hostile invasion, no one was permitted to build outside of the walled plaza. And the settlers were required to till their portion of the land that had been distributed to them by the Crown, sowing and planting wheat, corn, and other edibles as well as setting out fruit trees (SANM I, SG# 144, Roll 26, Frame 940).

Empowered by the governor, it was Alcalde Fernandez's duty to designate and mark out the village site, layout the plaza, and parse out lots ample enough for dwellings and corrals. He was to ensure that the enclosed plaza was to have no more than four outlets, which could only be placed at the corners, and to distribute the cultivatable land equitably among the settlers. Given the additional families named in the second petition, the governor also felt it necessary to expand the grant boundaries. The north, west, and south boundary lines could not be extended as they would infringe on San Felipe, Santa Ana, and Bernalillo lands. Accordingly, the eastern boundary was extended to account for the current inhabitants as well as accommodate the future growth of the settlement. Pasturage, woods, and water were explicitly stated to be common for all (SANM I, SG# 144, Roll 26, Frame 940-941).

On January 12, 1768, Fernandez, Chief Alcalde and War Capitan for the area, informed the petitioners of the governor's decision and delineated the village plots. Furthermore, he added unimproved land to that which was already under cultivation. As instructed, he confirmed the size of the house and corral lots and made certain there was adequate room for the addition of new structures. He also called attention to the boundaries of the grant which were now defined by a ridge close to the village which ran to a crested hill adjoining the watering hole commonly called La Uña de Gato on the north, some red hills that formed a ridge at the point of the Sandía Mountains on the south, and some high hills adjoining the place commonly called Las Placitas on the west. Unfortunately, the correspondence is torn where the eastern boundary is delineated making this border unclear (SANM I, SG# 144, Roll 26, Frame 941). Finally, Fernandez performed the ceremony that signaled the true concession of the land grant. For this he took the villagers by the hand leading them over the landscape that had been so recently defined. After which they plucked up weeds, cast stones, and shouted three times, "Long live the King, and may God preserve him" (*biva el rey nuestro senor que Dios le quarde*). With this the petitioners took peaceable possession of the land for perpetuity.

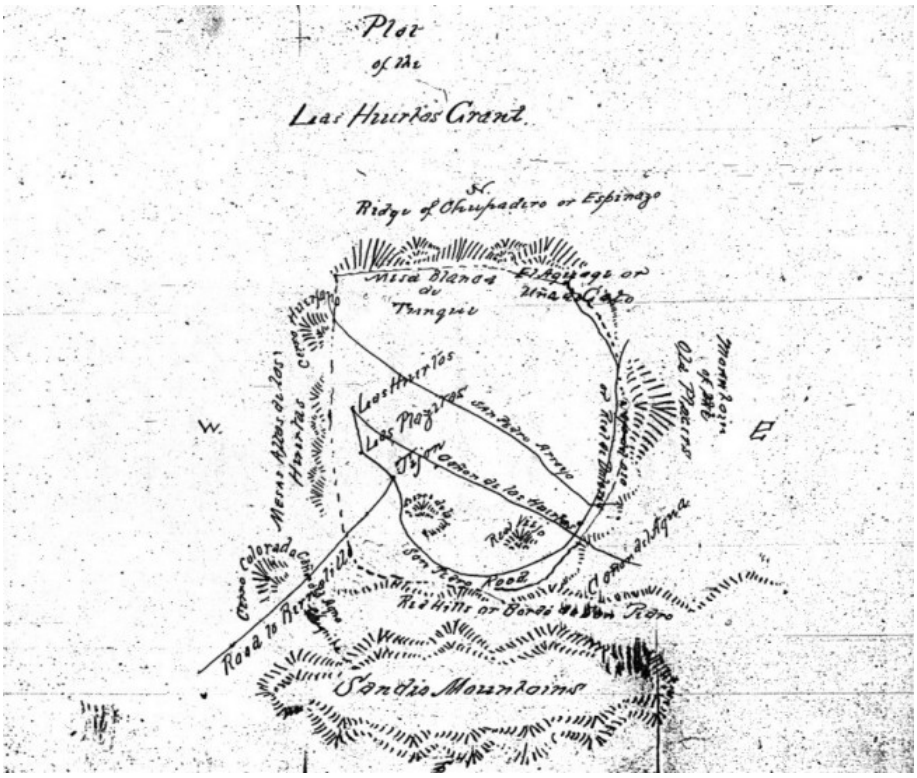


Figure 2-2: Sketch map of Las Huertas Land Grant area, 1881 (SANM I)

During the six decades that followed, families planted and harvested crops, and tended their livestock. Children were born and baptized, couples married, and some residents lost their lives, much of which was detailed in the sacramental records kept by the local mission priests. Few disputes involving the villagers of Las Huertas were significant enough to warrant the intervention of the governor in Santa Fe, and even these appeared to have been easily resolved. For example, the lack of payment received in a land sale eventually warranted the intervention of the governor. This was likely the result of the seller having moved out of the province and, thus out of the range of the local spheres of influence. Although there were periods of peace, the community perceived itself to be under the continual threat of raiding by the Navajo, and occasionally by the Comanche as well (Smith 1973:30).

The early 19th century saw an increase of hostilities by nomadic Indian groups in the province as the nascent Mexican government was preoccupied with affairs of state and its military forces were unable to protect many small settlements (Tyler 1970). In order to defend these frontier communities from being pillaged, Don José Antonio Viscarra (second Mexican *jefe político* of New Mexico) issued decrees ordering the inhabitants of villages scattered throughout the mountains and valleys to move to more populated areas closer to the Rio Grande where attacks were less likely. Viscarra sent word to the Alcalde at Alameda on April 23, 1823 that he was to inform the villagers of San José de las Huertas of their relocation to other settlements. At Algodones, situated northwest of Las Huertas on the Rio Grande, the displaced families were provisioned with land for agriculture and grazing (Smith 1973:49-50). In addition to moving to Algodones, some former Las Huertasanas found themselves residing in Socorro, Albuquerque, and La Cienega (south of Santa Fe).

One account of the village's abandonment has survived in the oral historical record. Patricio Gallegos recalled the description his uncle, Calletano Chaves, often related to him over the years:

> I was fifteen years old. I well remember the people putting their things together to leave the place. I went with some other boys to take the goats to the mountains for feed. Our father told us when we brought the goats in that they would be gone and for us to drive the goats down the cañón to Algodones. They would be there looking for us. When we brought in the goats, the houses were all empty and nobody was there, so we drove the goats down to Algodones (Rebolledo and Márquez 2000:125).

Baptismal records show a number of families remained in the village until 1826. However, additional historical data suggests that a small number of men and boys never ceased to leave the area, continuing to utilize it in the care of their flocks.

After little more than a decade, many of the families that were forced to leave Las Huertas returned to their land grant. Just one mile southwest of San José de las Huertas, Placitas

is the most significant descendant community on the San Antonio de las Huertas Land Grant. Although the date of its establishment remains uncertain, we do know that 16 families were living there in 1843. Others founded Tejón, four miles east of Placitas, in 1840. Tecolote and Ojo de la Casa, which were also on the grant lands, were settled in the late 1850s. And in 1839, a few descendents (Ramón Gurulé, his daughter Josefa, and others) from Las Huertas petitioned the government for land at San Pedro Rancho, located 20 miles away. But five years after they were awarded the grant, they sold it and became the founders La Madera, five miles southeast of Placitas (Rebolledo and Márquez 2000; Smith 1976). Even these families felt the pull to return to the land of their ancestors.

Environmental Setting

The archaeological site of San José de las Huertas is located at the northern end of the Sandía Mountains, northeast of Albuquerque, east of Bernalillo, and south of San Felipe Pueblo. Established in the mid-1700s on the San Antonio de las Huertas Land Grant, the site occupies the central portion of the NE ¼ of Section 29, T13N, R5E, Sandoval County, approximately 1.5 miles (2.5 km) north-northwest of the present-day Placitas, New Mexico (Ferg 1984). The village remains sit on a large area of a wide, flat terrace at the southwest base of the Cuchilla de Escala hills and to the north of Las Huertas Creek. The creek bed opens into a broad valley at this point, although the creek itself is still well entrenched. The site is further bounded on its northwest side by a small, unnamed, dry wash that empties into Las Huertas Creek directly west of it. To the east and southeast, the settlement extends some distance up the channel of the creek.

San José de las Huertas is situated within the Upper Sonoran Life Zone at an elevation of about 5700 feet (1736 meters). The vegetation is characteristic of the Juniper-Piñon Woodland type; including juniper, piñon, sagebrush, cholla, prickly pear cactus, and short grasses. Modern contaminants are reflected in the variety of groundcover found across the site (Ferg 1984). Limited Riparian Woodland trees and vegetation are found along Las Huertas Creek. Local fauna in the vicinity of the site and in the adjacent canyons and ridges of the Sandías historically included rabbits, deer, antelope, bear, coyote, turkey, and grouse.

Las Huertas Creek would have provided the main source of water for the village of San José de las Huertas. The creek flows year round; fed by springs upriver and runoff from the Sandía Mountains. Interviews with the descendant community now living in Placitas indicate that the creek's flow has fluctuated significantly over time. The flow of the creek was likely quite good at the time of the founding of San José de las Huertas. Though not tapped by the villagers, there is also an underground aquifer beneath the Placitas area and the Rio Grande River is 4.4 miles (7 km) to the northwest attesting to the relative local wealth in water (Montgomery, personal communication).

Site Description

One of the most prominent features currently visible on the ground surface includes a perimeter wall of rubble and adobe remains that surrounds the village. The dimensions of this walled area measure approximately 140 meters from northwest to southeast and 270 meters along the southwest and northeast sides. The county road, Camino de la Rosa Castilla, passes to the north and east of the site and has destroyed a portion of the perimeter wall as well as any associated structures and middens. Low mounds of adobe and cobble alignments located within

the village suggest the presence of at least 8 to 10 structures and 4 interior walls. The original walls and houses have either been salvaged or eroded over the years as indicated by Schaafsma; "Rumaldo Montoya, a long-time resident of the valley reports that years ago there were walls still standing five or six feet high" (1972:2). This statement is further supported by a 1910 survey map of the area that depicts the ruins of numerous (about 16) old structures.

The bench where the site is located is covered with sherds and lithic material. Artifacts and structural remains occurring to the northeast and southeast of the perimeter walls indicate that the occupation was not restricted to the walled village. The village complex spans at least 8.84 hectares and includes the broad flat lands that were utilized for agriculture. An extensive irrigation system is also evident on the slopes to the north of the main portion of the site. These canals, as well as others not clearly visible, were fed by Las Huertas Creek. Intruding on a small portion of the site and running along the northern perimeter wall is an old road bed, probably constructed during the later part of the 19th century.

At the start of our research at San José de las Huertas in 1999 the foundations of two modern, stone structures were present on the north bank of Las Huertas Creek below the walled village. One of these foundations, however, can no longer be found. It was likely washed away during one of the flash floods to have hit the creek in the past few years. Nevertheless, statements from the local populace indicate that the structures were constructed by hippies living on and around the southern portions of the site during the 1960s and 1970s. In addition, there is at least one midden containing remnants from this occupation located in the southeast portion of San José de las Huertas where an access road to an adjacent property owner's casita cuts through the site.

Cultural Affiliations

Pottery examined through survey and obtained from surface collections and excavations demonstrate most of the major types of Pueblo pottery present in the central Rio Grande Valley during the 18th and early 19th centuries. Wares found include heavily-striated plainware, Carnue Plain, Casitas red-on-brown, San Pablo Polychrome, Trios Polychrome, Ranchitos Polychrome, Santa Ana Polychrome, Zia Polychrome, Tewa Polychrome, Powhoge Polychrome, Ogapoge Polychrome, Tewa Red, Kapo Grey, Kapo Black, and a blackware with sandy temper. Majolicas discovered include Puebla blue-on-white, Puebla green-on-white, Puebla Polychrome, San Elizario Polychrome, Huejotzingo Polychrome, Orangeline Polychrome, and Tumacacori Polychrome types. Lithic materials and tools form are also consistent with the late Spanish colonial period. Materials were obtained locally and produced with an expedient core-reduction technology (Moore 2005).

The occurrence of pre-Spanish Pueblo pottery, such as Glazes D and F and Santa Fe black-on-white, indicate the presence of a Native American settlement nearby. There is, in fact, a pit house site south of San José de las Huertas on the other side of Las Huertas Creek. The evidence for pre-Spanish occupations below the village is sparse as few prehistoric artifacts and no features or living surfaces were found during excavations (e.g. Ferg 1984; Atherton and Rothschild 2002). It is possible that the colonial village was placed on top of agricultural fields associated with the small settlement immediately south of the creek. Additionally, minor amounts of modern debris in the form of beer cans and bottles as well other trash were also observed on site. These appear to have been deposited through local use of the land (such as walking through or congregating on) prior to the Archaeological Conservancy's acquisition of the site in the 1980s. In sum, LA25674 seems to be comprised chiefly of the occupational

remains associated with San José de las Huertas with only some prehistoric and historic (1960s-1970s) hippie intrusions.

Land Ownership

The majority of San José de las Huertas is presently owned by the Archaeological Conservancy, a non-profit organization that protects and manages many important sites within the United States. The only exception to this is the eastern 90 meters of an *acequia* and possible reservoir associated with the village occupation, which are on land owned by another private party. Following the abandonment of Las Huertas and the return of the villagers to the area during the late 1830s, the site was under the control of the founding families until the early part of the 20th century. A survey map generated in 1910 shows the site, and its standing ruins, to be owned by David and Joaquin Trujillo who were descendants of one of the 21 founding families of San José de las Huertas. The adjacent lands east of the walled-village were owned by Abel Montoya. At some point after this, the lands moved out of their possession, with parcels either being sold or acquired unethically. By the time of the MAPCO pipeline survey in the 1970s, the site was owned by a series of private owners; including Shell Pipeline Corporation, Paul Schmidt, the San Antonio de las Huertas Land Grant, and Jim Durett et al. The Conservancy acquired the first parcel of land via a donation from Shell in 1986 with subsequent parcels being added through both purchase and donation in 1988, 1999, and 2003.

At present, this archaeological preserve is enclosed by a barbed-wire fence and access is controlled by the Archaeological Conservancy. Aside from the more recent research conducted by Nan Rothschild and myself, the site is primarily used for site tours for educational and

donation purposes. Local residents, however, do occasionally walk across the site. The Archaeological Conservancy has enlisted two local residents of Placitas to act as site stewards.

Overview of Previous Archaeological Research

The Spanish colonial village of San José de las Huertas has been well-known by the local inhabitants since its abandonment and has had a history of being frequently visited and surface-collected. Nevertheless, the first formal archaeological record of the site was created by Curtis Schaafsma during his survey of the MAPCO (or Shell Pipeline Corporation) Liquid Hydrocarbons pipeline in 1972. In his survey, Schaafsma briefly describes the site (designated as MAPCO Site No. 2) and notes its significance as an early Spanish colonial settlement in the central Rio Grande. As such, he recommends relocation of the pipeline corridor (Schaafsma 1972). The resulting action was that the proposed pipeline was moved to the north of Las Huertas near an existing MAPCO right-of-way.

The next phase of compliance was carried out by Complete Archaeological Service Associates under a subcontract to Woodward-Clyde Consultants, who was the prime environmental contractor for this project. CASA performed the Class III cultural resource inventory of the newly proposed 50-foot wide MAPCO right-of-way, which now paralleled and partially overlapped an existing MAPCO pipeline right-of-way (Ferg 1984). In 1980, CASA contractors recorded and mapped the irrigation ditches, or *acequias*, associated with San José de las Huertas. Two irrigation ditches, an upper and lower (documented as AL-51-5), were described as running to the north and west of the site. The upper ditch appeared to have been rebuilt in segments after the abandonment of Las Huertas, while the lower ditch was solely associated with the occupation of the village. The recorders recommended that if the ditches are

to be disturbed by the relocation of the proposed pipeline, then they should be mapped and trenched as they would provide significant information on early Spanish colonial irrigation systems (Hammack and Hammack 1980).

The new route of the proposed pipeline was to be located about ten feet south of the existing MAPCO pipeline; meaning that its construction would pass close to archaeological materials visible on the far northeastern portion of the site. As a result, it was recommended that the proposed right-of-way be tested at this point and completely stripped if necessary. Given the topography in this spot and the intrusive activities involved in the construction of the present pipeline, only the areas south of the pipelines (existing and proposed) and west of the county road retained any possibility of having undisturbed deposits (Ferg 1984:16).

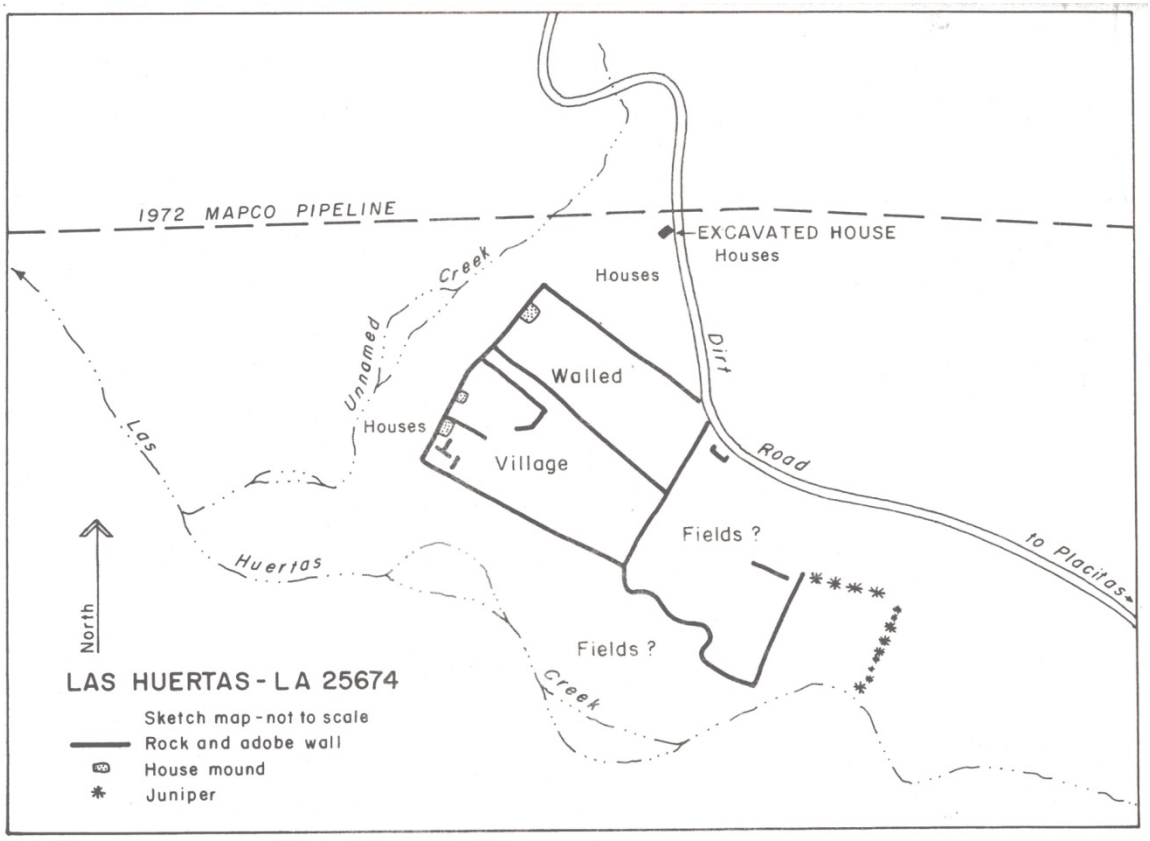


Figure 2-3: Map of San José de las Huertas (taken from Ferg 1984:10)

While testing that portion of the pipeline right-of-way running closest to Las Huertas, excavators unearthed a two-room house and a pit of unknown function. The excavated house had a foundation constructed of unsorted stones, gravel and adobe. Rubble-like fill within the structure suggests the walls were simply made of adobe and rock with the use of adobe brick only in the interior dividing wall of the structure. The exterior dimensions of the house were 9.6 meters long by 4.8 meters wide. The long axis of the house was oriented west-northwest/east-southeast with the exterior entry in the south wall (Ferg 1984:20). In the southwest corner of the room identified by Ferg as the kitchen was a fireplace pad. Built against the western wall near the northwest corner of the structure was a storage bin shaped from adobe and plastered on its interior with gypsum plaster. The bin was U-shaped and measured about 75 cm on a side. Another storage feature consisted of two pueblo polychrome jars set one atop the other in a slightly bulbous pit dug into the floor near the interior dividing wall (Ferg 1984:20-29). Fragments of selenite were also found in the room fill, indicating the presence of a small window.

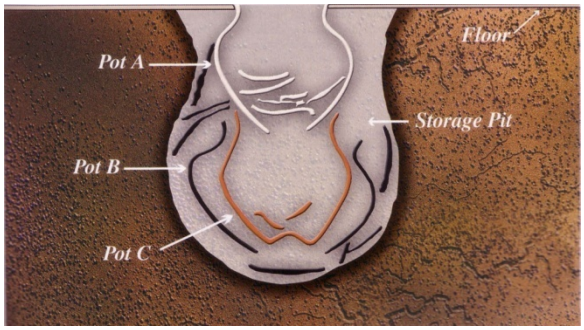


Figure 2-4: Illustration of nested pot feature (taken from Salmon 2002:29)

The bedroom, or more easterly room, contained a basin-shaped adobe fireplace in the southeastern corner that had been remodeled and replastered. In the southwestern corner was an indentation in the wall from which a thick pad of adobe projected slightly out into the room. Ferg postulates that this feature was a niche for a *santo* or *retablo* and describes the adobe pad as "an irregular hole going down some 15 cm—about the same height as the pad thickness above the floor" (Ferg 1984:31). Located west of the house was a pit measuring 1.7 meters in diameter

and about 30 cm deep. The feature may have been used as a borrow pit during the construction of the house, but it was never used as a trash dump.

Based on its proximity to the village and associated artifacts, the structure appears to be of Spanish colonial construction with a date of occupation around 1810 (Ferg 1984). CASA's excavations within the corridor produced a schematic map of the village area, a discussion of the history of the area, as well as detailed descriptions of the artifactual remains found in association with the house and pit. The site report and artifacts are currently housed in the Maxwell Museum of Anthropology at the University of New Mexico.

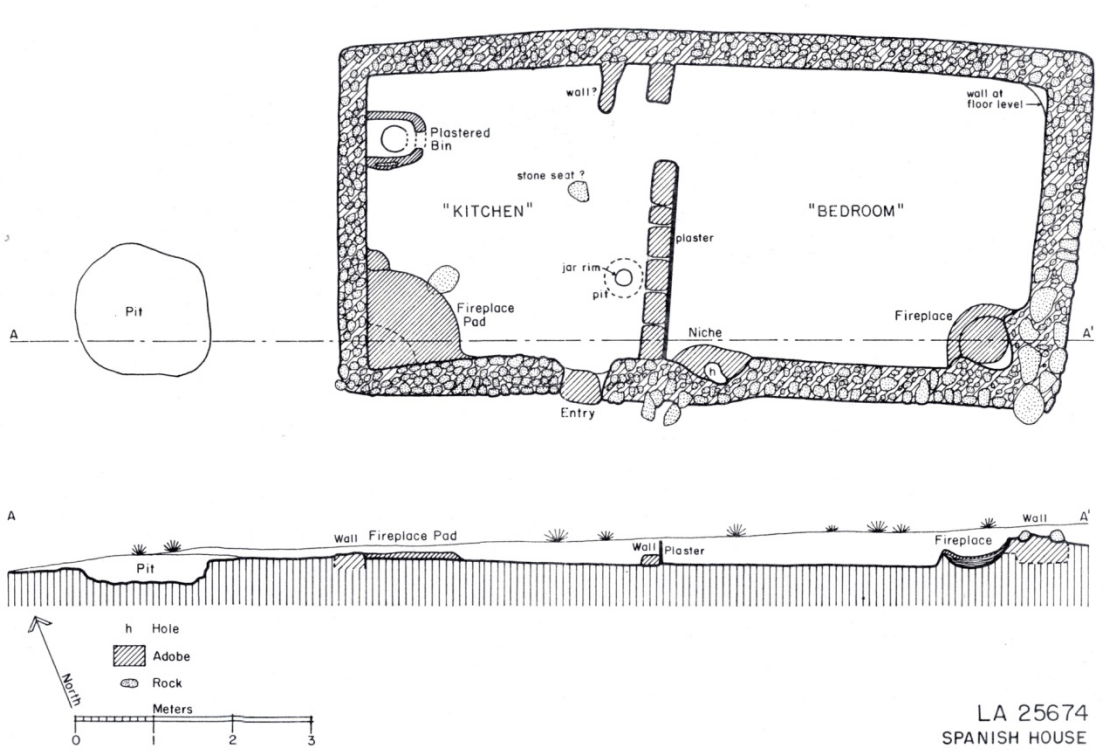


Figure 2-5: Plan and cross-section of house and pit (taken from Ferg 1984:21)

Following CASA's mitigation of the right-of-way, the University of New Mexico's Office of Contract Archaeology monitored the installation of the Cortez CO_2 Pipeline in the Las Huertas and Tecolote Valleys. OCA notes that the structural portions of the walled-village were

well beyond the boundaries of the pipeline corridor. Furthermore, the northwestern limits of the site adjacent to the MAPCO pipeline and county road were flagged in order to prevent vehicular entry into the extreme northwest section of the site. Though some vehicles parked near that portion of the site excavated by CASA, no disturbance resulted (Marshall, et al. 1986).

Figure 2-6: View of Las Huertas showing prior archaeological activity

San José de las Huertas is included in the New Mexico State Register of Cultural Properties and the National Register of Historic Places (resource #90001029). The nomination was submitted by James B. Walker of the Archaeological Conservancy in 1990. The majority of unpublished records pertaining to the archaeological site of Las Huertas can be located in one of three places: the Laboratory of Anthropology, Museum of New Mexico, Santa Fe; the Archaeological Conservancy in Albuquerque, New Mexico; and the Maxwell Museum of

Anthropology at the University of New Mexico. The latter is particularly relevant for any records pertaining to excavations that have been carried out at the site by this project.

Chapter 3: *Research Methods*

As alluded to in the introductory chapter, the research design for this project put forward a different set of problems than what are presented here. When I designed the proposal I had two main goals I wished to address. Because studies focusing on the socio-economic structure of settlements in New Mexico had tended to be opportunistic, the first goal was to shed light on the rural communities that were founded during the 18th and early 19th centuries (e.g. Carrillo 1997; Cordell 1979; Horvath 1977, 1979; Moore 2003; Quintana and Kayser 1980; Trigg 1999). This period, which is marked by the decline of the Spanish Empire, was poorly understood in the province; and little was known of buffer communities and what they looked like archaeologically. Consequently, information gathered through my research project was designed to contribute to the existing body of scholarship and advance our knowledge of the region as a whole.

The second objective was to elucidate the ways in which community identity operated within the fluctuating colonial experience. Spanish imperial policy greatly affected colonial life for it provided the framework within which Spanish settlers, administrators, and military personnel interacted with the various native peoples with whom they came into contact. However, the realities of daily life varied according to local circumstances and led to a necessary flexibility. This was especially true on the imperial frontier where, under conditions of isolation and duress, aspects of identity such as class, gender, and ethnicity were manipulated to reflect or create locally specific social realities. Although these constructions were linked to the larger social relationships that encompassed Spanish America as a whole, they were likely not as stringent as those found in the centers of colonial power (Elliot 1987; Pagden 1987; Rothschild

2003). Thus, in order to understand the nature of community life for the settlers of San José de las Huertas, I devised a series of questions aimed at exposing how various spheres of daily life articulated with one another. These questions centered on the topics of settlement layout and organization, village economy, and community social structure.

They included the following: How did the villagers of San José de las Huertas layout their settlement? To what degree was the Spanish Empire able to exert control over the village plan and its expansion? How did the villagers organize themselves economically? Is there any indication for the on-site production of goods? In what ways were the settlers involved in local, regional, and/or larger economic spheres? What was the social composition of the community and how were various aspects of identity signaled? Is there any evidence that social structuring principals like status, ethnicity, and gender were either accentuated or de-emphasized? In addition to honoring the conservation ethic of the landowner, the research methods employed in this project were devised with the intent of answering the above set of questions.

Archaeological Methods

Archaeological research resumed at the site of San José de las Huertas in the summer of 1999 when Professor Nan Rothschild and I began *New Mexico's Spanish Frontier: The San José de las Huertas Archaeological Project*. In order to collect the data need to answers questions on settlement layout, village economy, and the community's social structure, a number of archaeological techniques were utilized. Furthermore, because the site is owned and managed by The Archaeological Conservancy, a principal concern of the project was to preserve the remains to the best of our ability and to minimize our impact on the site. At the same time, we had to gather enough information to satisfy the project's research design.

Toward that end, the first phase of the project involved assessing the archaeological remains visible on the ground surface. It was necessary to evaluate whether or not there were sufficient intact archaeological features and artifacts to warrant a community study. As a result, a detailed map (Figure 3-1) was generated using a laser transit to depict all wall remnants and mounded areas that potentially represented structural remains. Using this map as a reference, a 20-by-20-meter grid was laid across the three hectare site. This grid provided the spatial points of reference within which all archaeological work was implemented.

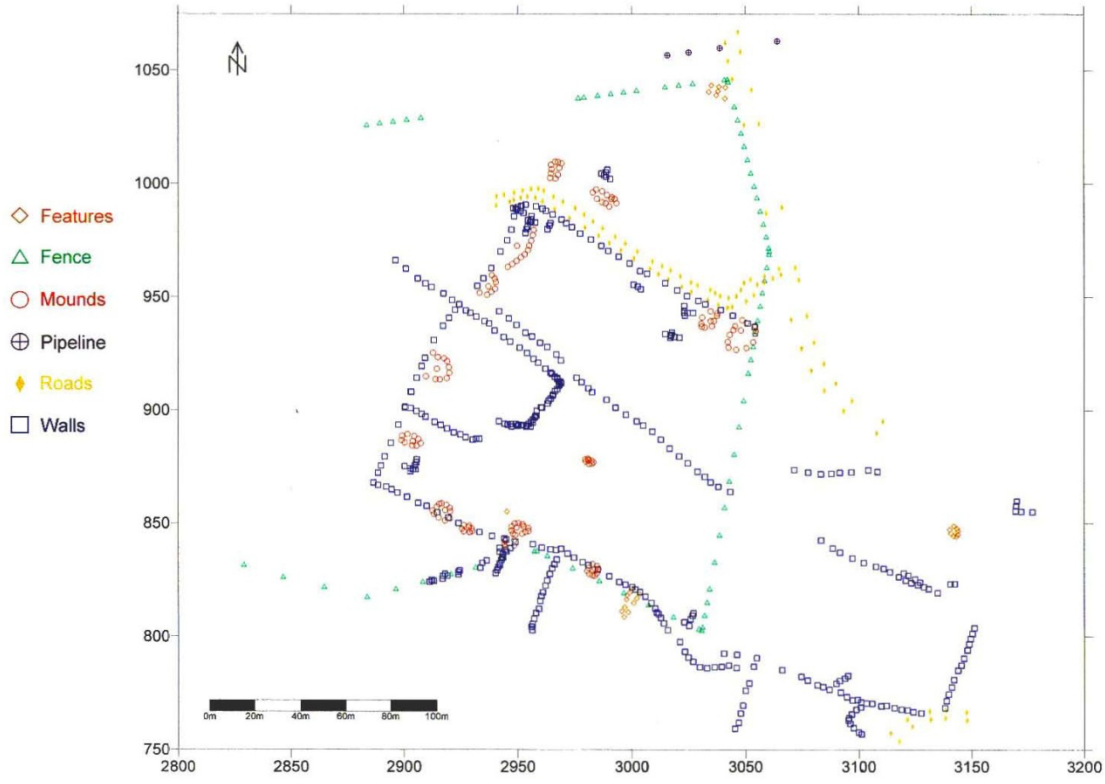


Figure 3-1: San José de las Huertas Feature Map, 2000

Geophysical Testing

Given the San José de las Huertas Archaeological Project's emphasis on preservation, geophysical testing was chosen for use at the site due to its non-invasive nature and for the

potential it has in precisely indentifying structures and other archaeological features, such as middens and hearths. Having worked with ground penetrating radar, electrical resistance (or soil resistivity), and magnetometer survey techniques in New York, Arizona, and New Mexico, I was comfortable using remote sensing methods at San José de las Huertas.

Based on this experience, the archaeological remains and geological deposits of the site, and the equipment and expertise available to me; we decided to conduct electrical resistance and magnetic surveys. Both survey methods used the 20-by-20-meter grid that had been laid across the site as their basic unit of data collection. The grid was laid out along a north-south axis. This orientation was ideal for conducting geophysical survey as the archaeological remains of the site were roughly oriented along a northwest-southeast axis. The approximate 45° difference in orientation between the site grid and architectural remains optimized survey results as the transects would continually be bisecting architectural features as opposed to running parallel to them.

Each 20-by-20-meter unit was surveyed by taking a reading at regular intervals along regularly spaced north-south transects. Tapes and ropes marked at one meter intervals were used to control transect spacing and position along each transect. Successive transects were surveyed in a zigzag pattern until the unit was completed. The value and position of each data point was automatically recorded in a digital format that could be downloaded later onto a computer for analysis.

Electrical Resistance Survey

The first geophysical application used at San José de las Huertas was an electrical resistance survey. This survey technique introduces an electrical current into the soil to measure

the degree of ease, or difficulty, with which the current flows through the soil. Variation in the resistance values measured across a site can be interpreted as variance in the relative resistivity of the materials composing the soil matrix in the vicinity of each reading. Resistance surveys react to a combination of soil moisture, soluble ion concentration, and physical soil type. Moist soils have lower resistivity, in other words the electrical current flows more easily than it does in dry soils. Fine soils, like clay, have lower resistivity than do course soils such as sand or gravels, and soils with a high salinity have a low resistivity as well. For example, stone architecture or pits filled with sand or gravel might appear as high-resistance anomalies while pits and trenches containing organically enriched fill, clays, and high salinity soils might appear as low-resistance anomalies.

Resistance surveys that employ twin electrodes, like that carried out at Las Huertas, measure the soil resistivity in the immediate area of the sampling probes. The probes measure to a depth that is roughly proportional to a semi-spherical volume with a radius equal to the spacing of the current and potential probes. The actual radius of "response" is a complex function of feature contrast, size, geometry and depth below the surface. In general, greater probe spacing will result in increased depth of penetration but at the expense of the resolution of small, low-contrast features.

Effective resistance surveys occur when the resistivity contrast between the archaeological record and the surrounding soil matrix is great enough to be detected by the survey instruments. The data recorded during survey are an average composed of contributions from the surrounding soil matrix and the archaeological record. Thus, in order for the archaeological record to be clearly detected, its signature recorded in the measured average must be greater than the statistical uncertainty in the survey data (Jones 2002:8). As such, an

appropriate survey design (including instrument selection, instrument configuration, data sample density, and field methods) is necessary for a successful survey.

Site geology is seldom uniform and the spatial variability of resistance data associated with the geology will also be present in the survey data. Geology can usually be distinguished with the resistance data by its scale and geometry. Field conditions can affect the speed and quality of data collection as well. Although there are a number of fairly level areas at San José de las Huertas, much of the terrain is broken or steeply sloping. A considerable portion of the site is covered, sometimes thickly, with brush and cacti. Rough terrain and heavy vegetation can affect the spatial control and data quality with both electrical resistance and magnetometry instruments. As stated previously, resistance surveys can be greatly affected by soil moisture. The resistance survey at Las Huertas was very successful in 2000, but drought conditions resulting in low soil moisture during the 2001 and 2002 field seasons severely affected both survey speed and data quality.

A Geoscan Research RM15 resistance meter was used to perform the resistance survey. It was combined with a PA5 probe array and operated in twin probe mode using a mobile probe spacing of 0.5 meters. I performed the resistance survey with the assistance of project crew chiefs Kelly Britt, Scott Kremkau and Phil Leckman over three field seasons. We collected data on 32 contiguous survey units totaling 1.28 hectares. Transect spacing was one meter with either one or two samples taken per meter along each transect (1 or 2 samples per m^2).

The survey data from Las Huertas was processed by Lewis Somers and Geoffrey Jones of Archaeo-Physics, LLC using the Geoplot software provided by the manufacturer of the survey instruments. The data quality yielded by these instruments is usually excellent and very little correction during processing is required. The extreme outliers were removed and the data was

clipped to the appropriate range by examining the data statistics and histogram characteristics. The data were also interpolated (up or down) to a 4-x-4 data sample per meter density for viewing and export to graphics software. Filters were also applied to suppress large-scale geologic variation and to enhance small low-contrast anomalies.

The results of geophysical surveys of archaeological sites are generally presented graphically. This is because anomalies of cultural origin are generally recognized by their patterning rather than by their numeric values alone. When rendered graphically, we can better recognize cultural and natural patterns and visualize the physical phenomena causing the anomalies detected by the surveys (Jones 2002). The results of the resistance survey are presented in Figure 3-2.

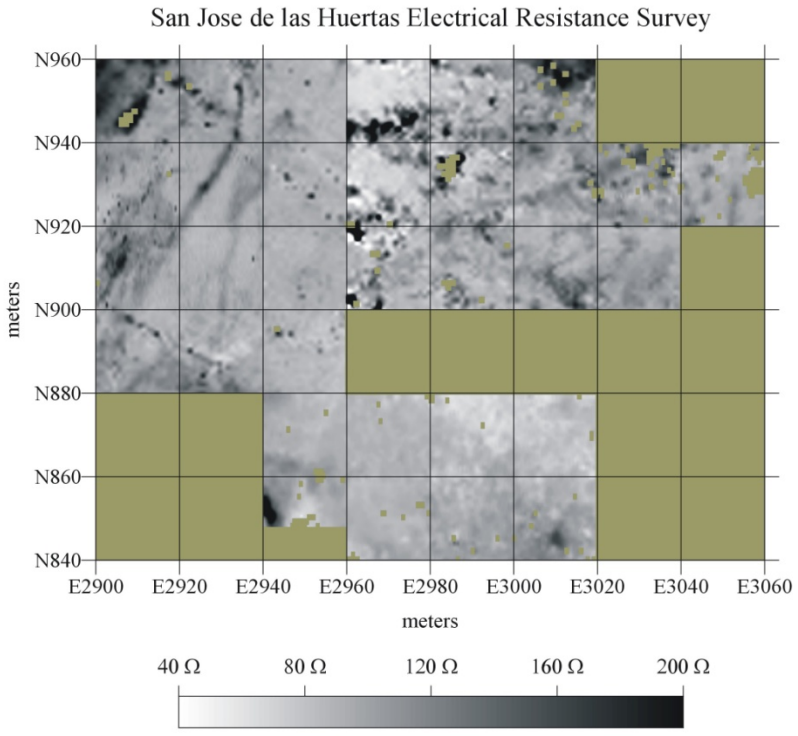


Figure 3-2: Resistance Survey Results

Although the resistance survey at Las Huertas was generally less successful than the magnetic survey, largely due to low soil moisture in 2001 and 2002, several linear high resistance anomalies can be seen in the data. The area north of N880 and west of E2960 was surveyed during the 2000 field season, when soil moisture was more favorable than in subsequent years. Resolution of the features in this area is better than elsewhere. Unconformities between adjacent grids are due to differences in field conditions during different field seasons that could not be fully rectified during processing.

The linear resistance highs (or anomalies) visible in Figure 3-2 appear to be cultural in origin and are consistent with high-resistance architectural features, likely those of stone. Adobe architecture may be expected to be expressed more subtly in resistance data as diffuse resistance lows. A number of "architectural" features appear to have both high and low components; suggesting architectural elements consisting of both adobe and stone. While there appear to be no major features expressed in the resistance data that are not evident in the magnetic data, a comparison of the two datasets should give insights into feature composition and detail. Moreover, identification of the same or similar features by two different geophysical techniques is indicative of the veracity of the results.

Magnetic Field Gradient Survey

As no geological study was conducted on the archaeological remains and their surrounding soils prior to the geophysical surveys at Las Huertas, it was assumed that the earth's magnetic field near the surface of the earth is uniform and that the gradient of this field is zero (Somers, personal communication 2000). When an archaeological or geological magnetic field

has been measured, it adds to the earth's magnetic field and the magnetic field gradient is no longer zero.

Magnetic field gradient surveys measure the deviation from the uniform or baseline magnetic field. The deviation is recorded as positive data when it is in the direction of the earth's magnetic field and as negative data when it is in the direction opposite of the earth's magnetic field (Jones 2002:9). In these surveys, the more "magnetic" the archaeological record is, the greater the magnetic field distortion and the greater the feature contrast in the survey map.

The archaeological record has two basic properties or mechanisms by which it distorts the earth's magnetic field. They are remnant magnetization, a permanent magnetic effect, and magnetic susceptibility, a bulk magnetic property similar to density. Both mechanisms are dependent on the presence of iron (e.g. iron oxides in soils, sherds and hearths) and alter the magnetic field at the surface of a site. As such, they are mapped as distortions of the earth's magnetic field.

Remnant magnetization creates a "permanent magnet" effect and is associated with iron and steel objects (including rust) as well as with ceramics, hearths, fire pits, fire-altered stones and soils. In these materials, the remnant magnetization originates from heating the iron oxides occurring in most soils above the critical temperature of 565 to 675 degrees Celsius, known as the Curie temperature. When the soil cools, the temperature-induced changes in the iron oxide crystals become fixed and permanent. It is this change in the magnetic state of the soil, or object, which creates a remnant magnetic field. This thermally created magnetic field adds vectorially to the earth's magnetic field to cause a local distortion (Jones 2002:9). Thus, most cultural objects and processes associated with heating are potential archaeo-magnetic survey articles of interest.

Magnetic susceptibility alters the earth's magnetic field directly and in a manner roughly analogous to the way porosity alters the flow of water through a solid. In other words, the magnetic field is increased where the magnetic susceptibility is larger (high porosity) and it is decreased where the magnetic susceptibility is low (or low porosity). Many objects and processes (thermal, chemical, biological and biochemical, physical and mechanical) locally increase the magnetic susceptibility of the soil. The mechanisms for this increase are also associated with changes in the iron oxide crystal structures within the soils. Local changes in a site's magnetic susceptibility alter the earth's magnetic field. It is this distortion that is recorded and mapped. In magnetic surveys, remnant magnetization effects are typically greater than susceptibility effects (Jones 2002:9-10).

The magnetic field gradient survey was performed using a Geoscan Research FM36 fluxgate gradiometer. The magnetic survey was conducted by Geoffrey Jones of Archaeo-Physics, LLC during the 2002 field season. Over 77 contiguous 20-by-20-meter units were surveyed for an area totaling 3.08 hectares. The instrument was operated in the 0.1 nT sensitivity range (Jones 2002:1). Transect spacing was 0.5 meters with four samples taken per meter along each transect (8 samples per m^2).

The magnetic survey data was also processed by Geoffrey Jones using the Geoplot software, which is provided by the manufacturer of the survey instruments. The data are typically corrected using a "Zero Mean Transverse" algorithm which removes scan to scan instrument operator bias defects. A Gaussian low-pass filter was also used to remove high-frequency spatial detail, or to smooth the data. The data was interpolated (up or down) to a 4-x-4 data sample per meter density for viewing and export to graphics software.

As with high-pass filtered resistance data, magnetic field data are also a zero mean bipolar data set. Magnetic field gradient maps can be thought of as containing features which increase the field gradient by locally adding to the earth's field and features which decrease the field gradient by locally subtracting from the earth's magnetic field. The zero data regions correspond to areas of uniform or undisturbed magnetic field.

Thus, all positive data can be interpreted as features with increased magnetic fields due to increased susceptibility or remnant magnetization oriented in the same direction as the earth's magnetic field (e.g. hearths, fire-altered soils, brick, sherds, and iron). All negative data can be interpreted as features with decreased magnetic fields due to decreased susceptibility or remnant magnetization oriented in the direction opposite to the earth's magnetic field (e.g. bricks, sherds, and iron) (Jones 2002:10).

In areas that have been surveyed with more than one type of instrument, the results of the different surveys should be carefully compared. Correlations between datasets, or lack thereof, can be as important as either dataset by itself in the interpretations of potential archaeological features at a site. At San José de las Huertas there is a high correspondence between both the resistance and magnetic surveys with respect to the most substantial features present at the site. Nearly all the anomalies, or features, evident in the resistance data are paralleled in the results of the magnetic survey (shown in Figure 3-3).

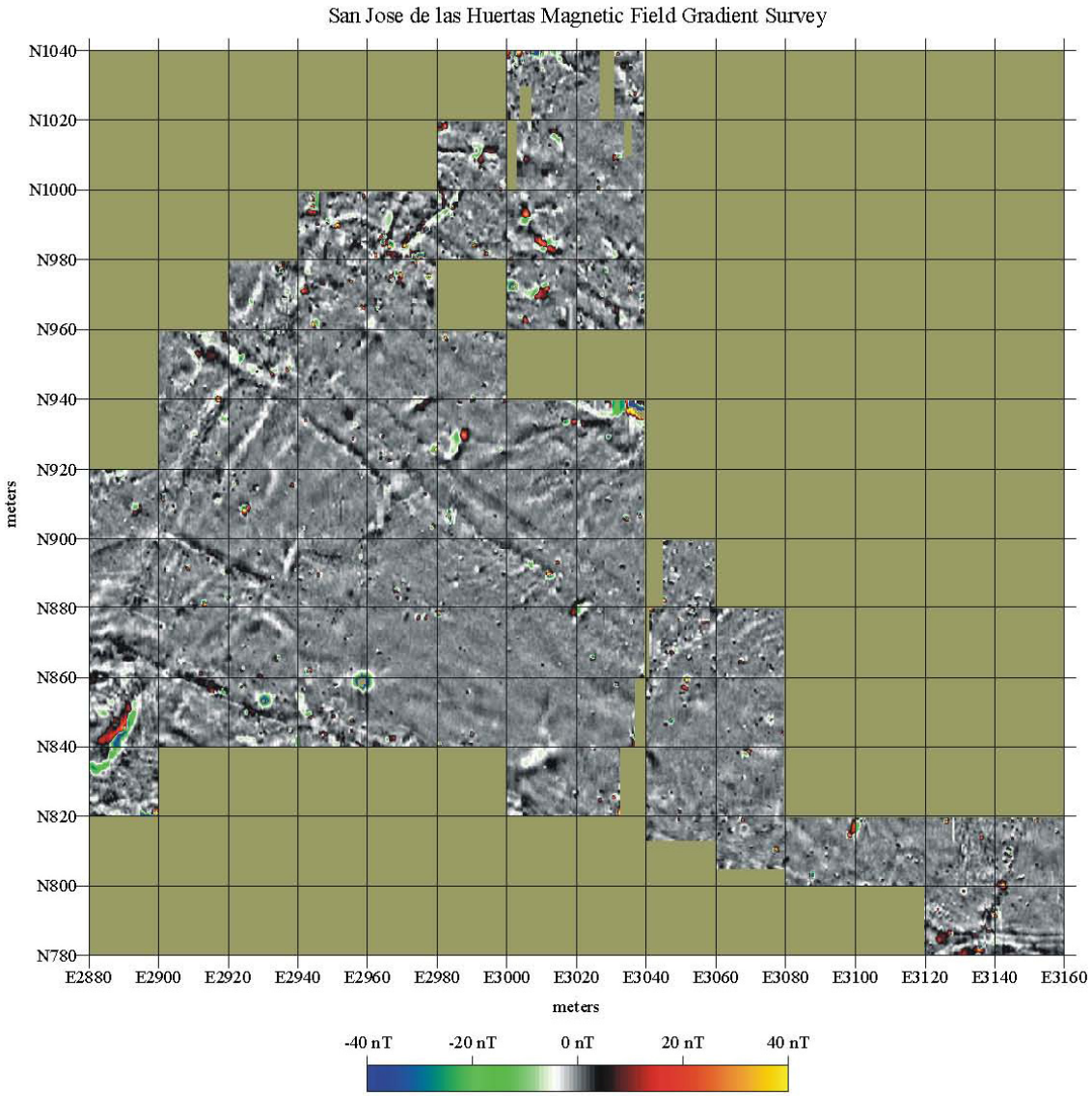


Figure 3-3: Magnetic Survey Results

The quality of the magnetic data was to some extent compromised by the terrain and vegetation of the site; causing higher instrument noise and "smearing" or displacement of cultural features. In addition, modern metal debris was common throughout the site. This produced many high amplitude anomalies that tended to obscure more subtle relevant data.

Numerous anomalies were detected during the magnetic field gradient survey. These cultural features appear to represent the plan of the Spanish colonial village of San José de las

Huertas. The village was enclosed by a perimeter wall with an access point at its southwest corner and a *torreón*-like feature in the northwest corner. Although this circular structure does not protrude from the perimeter wall as traditional Spanish turrets do, I believe it was a *torreón* given its shape and location on the landscape. The structure was built on a high spot, the topography sloping to the south and the valley opening to the west. Also, to the west and north of the *torreón* (or on its exterior side) is the steep bank of an arroyo, making it nearly impossible for this construction to jut out from the surrounding wall. House structures appear to have been placed against the perimeter wall leaving a plaza area, or communal area, in the center of the settlement.

Figure 3-4 illustrates the magnetic survey data overlain with the cultural interpretations of that data. Specific feature and feature types are discussed below.

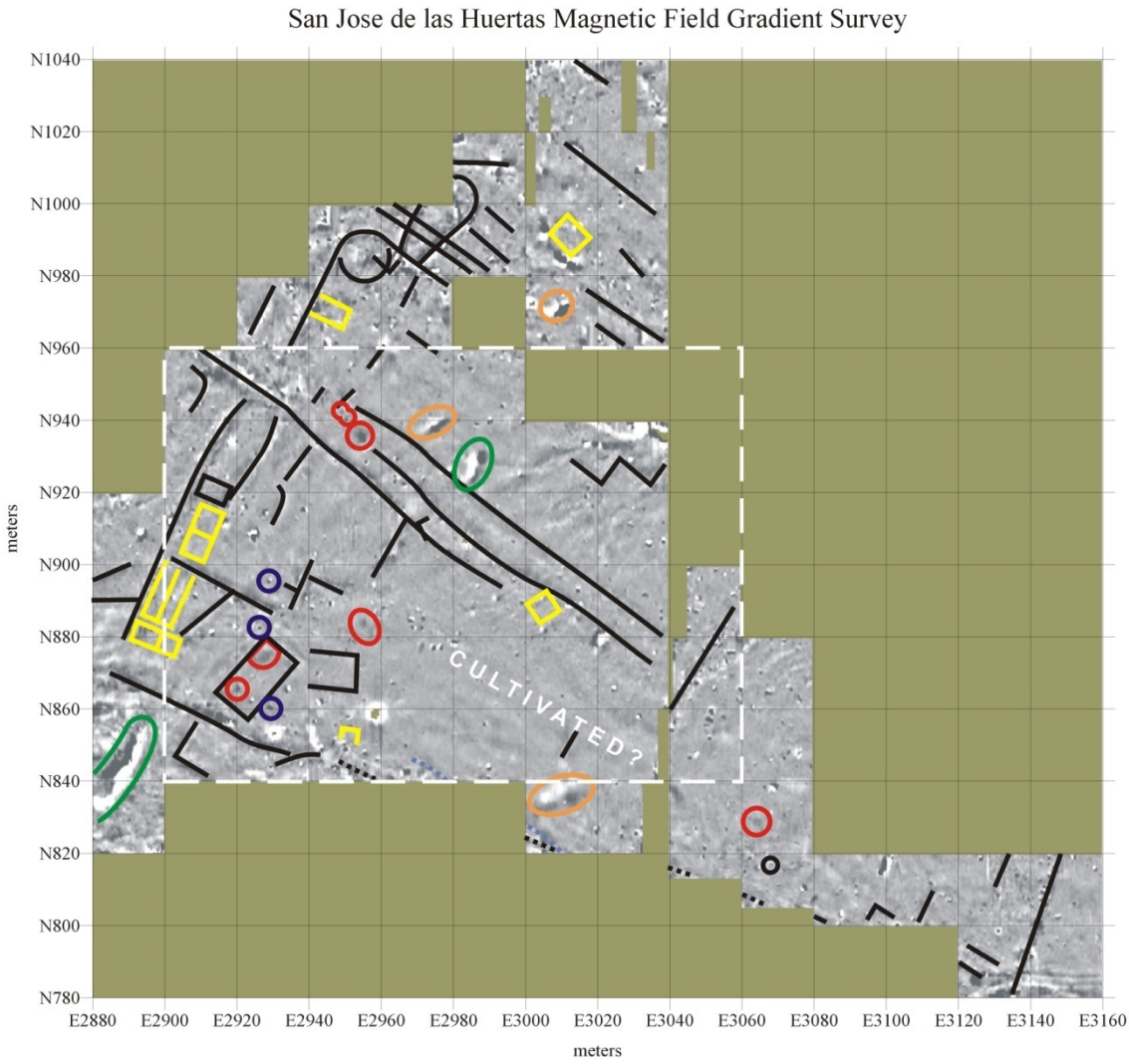


Figure 3-4: Cultural Interpretations of Magnetic Data

For the sake of comparison with the resistance data, the area covered by the resistance survey map is outlined with a dashed white line. The yellow lines in Figure 3-4 indicate anomalies thought to represent structural walls. Some of the structures have possible fireplaces in the corners, visible as small discrete magnetic highs. Interior walls or structural debris appear as high-susceptibility deposits (diffuse low amplitude highs) within and around the more discrete building walls. The black lines indicate linear features believed to represent fortification walls, roads or other linear or rectilinear cultural features, including less well-defined structures.

Where this patterning appears to be complex, the black lines may indicate trends rather than individual anomalies. The dashed black lines along the southern edge of the survey area seem to be caused by a modern footpath that runs along the top of Las Huertas Creek bank.

Examples of low-amplitude magnetic highs are circled in red. This type of anomaly may be caused by organically enriched cultural features such as middens or activity areas, by thermally altered minerals associated with hearths or other features, or by concentrations of high-susceptibility minerals. Other anomalies similar to these appear throughout the survey area. Three examples of possible hearths, fireplaces, or other thermal features are circled in dark blue. Thermal features are often expressed as low to medium amplitude magnetic highs, or as a north-south aligned bipolar anomaly with the positive pole directed to the south. Additional anomalies similar to these appear throughout the site as well.

Many high-amplitude bipolar anomalies that occur in the dataset are not marked on the map in Figure 3-4. Causes of this type of anomaly can include other permanently magnetized objects or features, such as igneous rock, thermally altered rock or soil, and brick or other large ceramic objects. Two large high-amplitude bipolar anomalies have been circled in green. These particular anomalies may have been caused by lightning-induced remnant magnetization. The alignment of poles in these anomalies is not consistent with a thermal feature. Moreover, the scale and somewhat diffuse appearance of these two features suggest that they were not caused by metal. In contrast, three large high-amplitude bipolar anomalies are circled in orange and appear to have a polar alignment consistent with those of thermal features. It is possible that these represent large or highly magnetic thermal features such as kilns or forges, although metal objects or lightning strikes are possible causes as well.

A large area near the southern edge of the survey area is marked "CULTIVATED?" in white. Although there is no direct evidence in the magnetic data for cultivation, such as plow scars, the lack of clearly defined features across a large area within the limits of the settlement, as well as surface indicators, suggest that the area may have been cultivated at some time. Surface indications include several deeply scratched, possibly by plowing, ceramic sherds, and less compelling evidence such as the general flatness and better soil development within this area (Jones 2002:5).

A number of other anomalies comparable to those previously discussed can be found throughout the site. The above examples were chosen as typical and unambiguous, but other similar anomalies ranging from very indistinct to barely perceptible may be indicative of additional cultural features not depicted in this particular illustration of the dataset. Moreover, it is entirely possible that any of the geophysical anomalies depicted in Figure 3-4 could be the result of natural or modern causes rather than those resulting from the activities of the villagers of San José de las Huertas.

Despite the potential for ambiguity within the geophysical data collected at Las Huertas, the magnetic survey of the site was successful in mapping numerous archaeological features and suspected features. Even though the resistance survey was not as effective, it did show many of the same features and suspected features seen in the magnetic data. Based on many of the features' coherent appearance in the geophysical data, it was expected that they retained some degree of integrity in the ground.

Furthermore, the large scale patterning in the geophysical data suggests that architectural features may be concentrated, or at least better preserved, on the western edge of the site (Jones 2002). It is possible that subsequent farming within the former limits of the settlement may have

obscured or destroyed features in other areas. We know from oral history and the 1910 survey map that the village site was under cultivation at the turn of the 20th century and may have been so as early as the 1840s when the Trujillo family resettled the Las Huertas area. The geophysical data also indicate the presence of several suspected architectural features that are not oriented to the general layout of the settlement, which may suggest a subsequent occupation as well. However, the lack of alignment among geophysical features may be a result of the informal way in which the village was established prior to the recognition and definition of the land grant boundaries, or due to rebuilding episodes that took place during the occupation of the village.

Figure 3-5: Segment of 1910 survey map showing ruins and cultivated land

Other disturbances to the site are clearly visible on the ground surface. There is an old road bed that runs along the northern perimeter wall of the village. Although it appears to not

have been in use for several years, it did serve as an access route to Bernalillo in the early 1900s. The construction of another road, Camino de la Rosa Castilla, is responsible for destroying the northeast corner of the walled-village as well as a significant section along the northern wall. Additionally, mild grading of the far southern and eastern portions of the village for a potential house site may have occurred sometime after the mid-20th century.

Archaeological Exploration

Ground truthing of potential archaeological anomalies detected through geophysical survey allows for a more definitive interpretation of geophysical data. Moreover, the results of ground truthing may, if done carefully, be interpolated and extrapolated to untested anomalies in other areas of the site. Using the maps of the geophysical data as a guide, test trenches measuring 0.5 by 6 meters were placed across three anomalies to test the veracity of the results, which shall be discussed below.

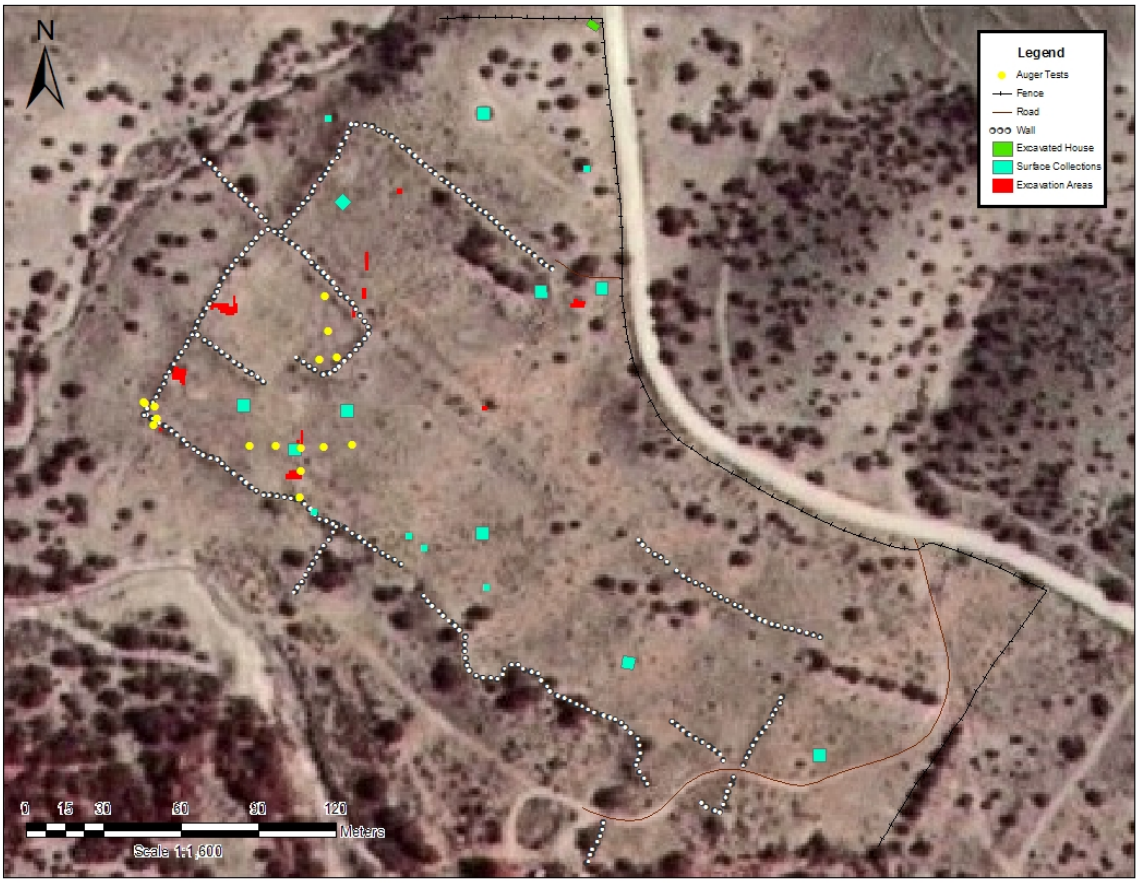


Figure 3-6: Map of Las Huertas showing location of archaeological units

Surface Collections

Based on the architectural remains and artifact distributions visible on the ground surface, 13 surface collections were made from across the village area in order to produce artifact samples from areas not investigated through archaeological excavations. Ten surface collections each covered a five square-meter area in which all artifacts found on the ground surface were gathered. Surface collection 12 was two square-meters in size and Surface Collections 9A-D and 13 measured one square-meter.

Surface Collection 1 (N870 E2925): Even though it was unclear that the magnetic gradient field survey would be a good indicator of surface remains, this sample area was placed over a

magnetic anomaly. The collection area was fairly visible, covered only by scattered patches of grass and cholla. The immediate topography was flat and no architectural remains were apparent on the ground surface. Artifacts collected included five ceramic sherds and one chert flake.

Surface Collection 2 (N885 E2945): The second collection area was also placed over a magnetic anomaly detected during survey. Here the site sloped slightly to the south and was sparsely covered with grass and cholla. Though the collection unit was located in the southeastern corner of a large enclosure within the village, no architecture was visible on the ground surface. Artifacts collected included six ceramic sherds, one rhyolite flake, and chert debitage.

Surface Collection 3 (N867 E2904): Unit 3 was located where a dead cholla had fallen over exposing a large concentration of selenite. The area around the uprooted cholla was mostly clear of the surficial grasses and other cholla that cover the site. Possible structural mounds or walls encompassed the dead cholla, from which point the site sloped eastward. Collected artifacts include two ceramic sherds, chert debitage, and 53 pieces of selenite.

Surface Collection 4 (N931 E3020): Surface collection 4 was placed south of a cluster of junipers situated on the eastern side of the site below a little wash running through the area and immediately southwest of Area 9. The visibility in the collection unit was good, containing only two clumps of grass and a small cholla. There is a berm to the south of a small arroyo that enters the area from the northeast. Collected artifacts include 40 ceramic sherds, three chert flakes, and a piece of slag.

Surface Collection 5 (N932 E3044): This five square-meter unit was placed on top of a mound near the eastern fence line that encircles the site. The ground surface was sparsely covered with clumps of grasses except where rabbitbrush grew in the northeastern corner of the collection unit. Some dressed stone was visible, but no other architectural elements were discernible. Artifacts include 17 ceramic sherds, an andesitic flake, four pieces of charcoal, and a piece of slag. A portion of this mound was later excavated as Area 9.

Surface Collection 6 (N1000 E2998): Unit 6 was placed over the northern site datum as artifacts around it had been exposed due to the heavy foot traffic in the area caused by mapping activities during previous field seasons. The ground surface was lightly covered with grasses with a large juniper nearby. The topography in the collection area was fairly flat, but began to slope downward immediately south of the unit. No architectural remains were apparent. Artifacts collected include 51 ceramic sherds, ten lithics, seven pieces of glass, three pieces of slag, and a mano.

Surface Collection 7 (N751.34 E3128.50): This collection of artifacts was gathered from a unit east of the barbed-wire fence that defined the site's eastern boundary in the 1980s but now bisects the site. The collection area spans the majority of what appears to be a midden situated not far from a bend in the access road to a neighboring property owner's adobe casita. Visibility in the unit is very good as vegetation in the area was lacking due to some prior disturbance of the ground surface. While there was no discernible evidence of architectural remains, the midden area was slightly raised in comparison to the surrounding ground surface. Artifacts include 89 ceramic sherds and a chert flake.

Surface Collection 8 (N788.10 E3053.85): Surface collection 8 was located immediately south of the southern perimeter wall and approximately 27 meters east of the barbed-wire fence that bisects the site. It was situated in an area where the bench of Las Huertas creek flattens out before dropping into the creek bed. Visibility in this area is good as little vegetation is present save the occasional juniper, some cholla, and scattered patches of grass. The ground surface slopes gently to the south towards the creek. No features were evident but 52 ceramic sherds were collected.

Surface Collection 9 [A) N818.69 E3001.72; B) N834.13 E2977.79; C) N838.69 E2971.84; D N848.18 E2934.82]: Surface Collection 9 consisted of four collection areas, each approximately one square-meter in size. The units were situated along the southern perimeter wall where a linear artifact scatter was created by slope wash. The collection areas were moderately covered by patches of grass and cholla. As the southern wall roughly parallels the bench of Las Huertas Creek, the soil outside the wall slopes (steeply at points) southward into the creek bed. Collected artifacts include 92 ceramic sherds and a strike-a-light flint.

Surface Collection 10 (N968.34 E2942.46): This 5-meter square unit was placed along the western wall near the northwestern corner of the perimeter wall near a magnetic anomaly that may be a structure. The unit was not aligned with the grid but rather with the settlement which is about 45° east of north. We did this so that our surface collection would be on the same orientation as some rock alignments and rock fall near the wall. Two rodent dens were in the collection area under a large cholla: one in the center of the unit and very large, measuring 2 by 2

meters; the other a square-meter in size and located in the northeastern corner of the unit. The unit spanned a portion of a mounded area that sloped downhill to the east and south. It was moderately covered by grasses and cholla. Artifacts include 73 ceramic sherds, four lithics, and four pieces of slag.

Surface Collection 11 (N837.5 E2997.5): Surface collection 11 was placed over the southern site datum. Artifacts in the area were exposed due to the heavy foot traffic in the area resulting from mapping activities during previous field seasons. Visibility of the ground surface was good as the area was only sparsely covered by grasses and a couple of cholla. The topography in and around the collection unit was flat and no features were evident. Collected artifacts include 13 ceramic sherds, four lithics, and a mano.

Surface Collection 12 (N980 E3040): This unit was placed to the north of the northern perimeter wall and our footpath onto the site. The purpose of the collection was to obtain an artifact sample outside of the village walls. Although there are no visible features on the ground surface, the unit was located near a potential subsurface feature identified by the geophysical surveys. The collection area was fairly flat and covered with tufts of grass and a small number of cholla. Artifacts include 27 ceramic sherds and two lithics.

Surface Collection 13 (N1000 E2940): The final surface collection was also placed outside of the perimeter walls. It was located northwest of the northwestern corner of the enclosed village. The collection primarily includes artifacts that appear to have washed down slope as the ground slopes westward here towards the arroyo that delineates the site along its western side. The

small assemblage contained a cup-shaped, copper piece that we thought was significant enough to be collected. The only vegetation in the unit was a very small amount of scrubby grass in a portion of the site that was largely a mix of dirt and gravel. Other collected artifacts include two pieces of slag and a fragment of refractory material.

Auger Tests

In order to test for various features, 15 auger cores were placed in several locations throughout the southwest quadrant of the site. The auger tests were conducted using a coring tool measuring eight centimeters in diameter with the depths of the cores ranging from 24 to 65 centimeters below the ground surface. Cores 1 through 7 were used to determine the extent of a plaza surface that was uncovered in Test Trench 3. Collectively the cores indicate a hard, compact deposit that begins approximately 35 centimeters below the ground surface and has a depth of 15 to 20 centimeters. This deposit was likely an extension of the plaza surface that was identified in Test Trench 3.

Cores 8-11 were used to test for the possible function of the moderately-sized enclosure located along the western perimeter wall of the village. It was thought that a portion of this enclosure may have been used as a corral or animal pen; however, there was no evidence for this in the core samples. The soils obtained from these cores were rather homogeneous in nature containing no indicators of the animal dung layer often associated with corral features. In fact, Cores 10 and 11 identified an ashy matrix more than 30 centimeters below the ground surface.

Cores 12-15 were used to identify potential midden deposits and discard patterns for the structures being explored through archaeological excavation in the southwestern corner of the site. For details see Appendix A. Core 15 was the only core that provided any indication of

being a midden. As this core was placed just outside of the perimeter wall in a low-lying flat area, the shallow artifact deposit indicated by the core may be the result of casual dumping by the villagers or the product of years of sheetwash across the site.

Excavations

To comply with conservation directive of The Archaeology Conservancy, a limited number of excavation units were used; and these were focused on sampling a number of different features within the site. Geophysical data provided an overview of the site layout and physical organization of the village, essentially mapping the subsurface features across the terrain. This allowed us to performed targeted excavations in order to gather data on village economy and community social structure. What appeared to be domestic structures were chosen to provide household data and information on intra-site variation. House structures were identified in Areas 1, 2, and 8. A number of linear features were tested with the aim of understanding how these constructions helped to organize space throughout the settlement; evidenced in by the digging of Areas 4, 5, and 6. "Open" areas between the structures were sampled to define these spaces, locate potential middens, and possibly to gain some insight on multi-household usage. These spaces are represented by Areas 3, 10, and 11. Two localities (Areas 7 and 9) were chosen to be explored on the basis of their surface remains, and not the geophysical data, since the topography in these areas prevented the collection of good remote-sensing data.

Archaeological excavations began at the site of San José de las Huertas in the summer of 2002 and were completed in 2004 (the location of excavation units are depicted in Figure 3-6). During the 2002 field season, Dr. Nan Rothschild, myself, five graduate students from Columbia University, and three teams composed of 27 Earthwatch Volunteers participated in

archaeological excavations, topographic mapping and surface collecting. Excavations resumed in 2003 and were expanded to new areas by Professor Rothschild, myself, five graduate students from Columbia University and two teams composed of 11 Earthwatch Volunteers. I completed the unfinished work in 2004.

Crewmembers excavated 101 square-meters in eleven different locations across the site. Archaeological units were dug in 10 centimeter arbitrary levels and all excavated soils were screened through ¼-inch mesh screen. At the end of each level, the crew cleaned, photographed and drew any features in the unit. The crew also took soil samples from all excavated features. In order to procure sufficient botanicals for analysis, crewmembers collected two-liter soil samples where possible. All other artifactual materials obtained from the screening process were bagged and cleaned in preparation for analysis. Once processed, artifacts were classified and recorded according to attributes that identified size, material, form and stylistic variation.

All archaeological exploration of subsurface remains took place within the defensive walls of San José de las Huertas. Excavation units were placed over anomalies identified by geophysical survey as potential structures, or other linear features. Again, unearthed features included portions of four houses, the trenching of two interior walls, two trash-filled pits, a cart road, a section of plaza surface, and a corral that was once a smelting feature. Excavations further revealed that the depth of the archaeological deposits in most areas of the site do not exceed a half meter. In four locations, excavations went below the occupation level associated with the village of Las Huertas in order to determine whether or not any pre-Spanish occupations were present. To date, no structural evidence of an earlier occupation has been found. Where structures were present, only the foundations and/or a portion of the bottom course of adobe bricks and floor surfaces appear to have remained intact (Atherton and Rothschild 2002). In

general, the subsurface remains largely undisturbed except where there are instances of bioturbation.

As the villagers of Las Huertas were ordered to leave their homes, the process of abandonment was probably an orderly one—the villagers taking the possessions they wanted to keep with them. Given the nature of the abandonment of Las Huertas and the long-time surface collecting at the site, the archaeological deposits that remain are relatively small and fragmentary. Moreover, some sheetwashing has occurred across the site, washing surface artifacts into Las Huertas Creek to the south and into the unnamed arroyo to the west.

Upon completion of excavation, a layer of clean fill was placed over the bottom-most levels of excavation and then covered in geotextile. Ceramic tiles noting the fill was generated by a project sanctioned by the Archaeological Conservancy were left on top of the geocloth before the excavated areas were backfilled with dirt. Artifacts and all documentary materials resulting from the San José de las Huertas Archaeological Project are being curated at the Maxwell Museum of Anthropology at the University of New Mexico.

Area 1: This was the first of three areas that were tested to ground truth what appeared to be a structural anomaly detected in the geophysical data. The initial half by six meter trench was eventually expanded to an area covering 23 square-meter units. Excavations revealed portions of two structures. Both structures had stone foundations that were overlain with adobe walls and consisted of two rooms. The structures also shared a common wall with the western perimeter wall of the village.

The long axis of the northern structure was oriented in a north-northeast to east-southeast direction. It was constructed of adobe bricks that appear to have been coated with a gypsum or

lime plaster. The floor had been carefully prepared and covered with a mud plaster. In the southwest corner of the structure was a raised, mud-plastered hearth that displayed evidence of multiple burning episodes. Additionally, there were signs of a single burning event across the floor surface of Room 1a. Adjacent to the hearth were the remnants of a rodent burrow.

Figure 3-7: Hearth in Area 1 (Feature 35)

Adobe-brick, wall fall lay between the northern and southern structures. The southern structure was oriented perpendicular to the northern one; the length of it being oriented in a west-northwest to east-southeastern direction. The foundational remnants, as well as geophysical data, show it was also a two-room structure. Only a very small portion of the interior dividing wall was exposed through our excavations. And while this domestic structure was built using some kind of adobe walls, the specific wall construction remains unclear as only the lowest level of the foundation remained intact. However, the walls and floors appear to have been plastered in the same manner as that used for the structure immediately to the north.

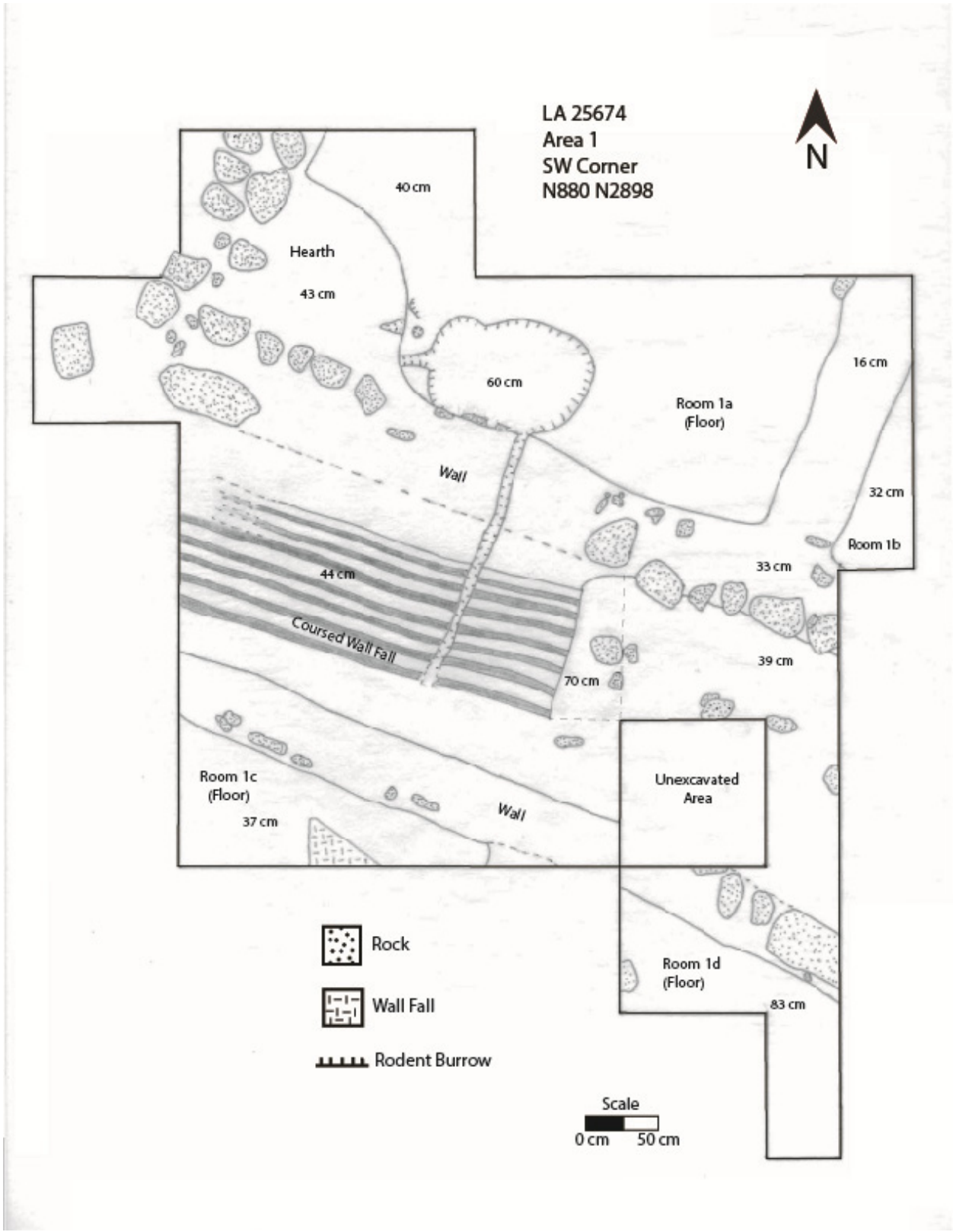


Figure 3-8: Map of Area 1 Excavations

Figure 3-9: Overview of Area 1

Area 2: The second test trench was placed over a structural anomaly north of Area 1 along the western perimeter wall. As structural remains were uncovered, the test trench was expanded to encompass a total excavation area of 27 meters. A portion of a large domestic structure (labeled as Room 2) measuring six by ten meters was unearthed. The structure was constructed using wide, adobe-brick walls set on a stone foundation. In the southeast corner of the structure was a circular fireplace

Figure 3-10: Detail of Feature 1

delineated by small adobe bricks. The fireplace was remodeled several times as evidenced by its multiple burnt surfaces. Buttressing on the sides of the fireplace and the discovery of slag and other smelting remnants in its immediate vicinity suggest that it may also have been used as a forge or smelter.

This domestic structure abuts the western perimeter wall. The perimeter wall, which also doubles as the western wall of the structure, was built to be two adobe bricks wide. Excavations further revealed that a small portion of the structure two meters east of the western wall has eroded away. While excavations of the structure in Area 2 were concentrated on its southern half, geophysical data indicate that there is a dividing wall north of the area we explored, thus creating a two-room structure. In addition, remnants of floor surfaces and foundations found on the exterior side of the structure's eastern wall indicate that it has been remodeled at least once. The earlier structure likely had different dimensions and two rooms as well.

We were fortunate enough to have Jeffrey Cox from the Archaeomagnetic Dating Laboratory at the New Mexico Office of Archaeological Studies take a sample from the hearth feature for dating purposes. Initial measurements of the sample date the hearth to before 1800. This date marks the last firing episode hot enough to raise the temperature of the ferromagnetic materials in the soil to the Curie point (the temperature at which these materials become paramagnetic), allowing the minerals in the sediments to take on the alignment of the local magnetic field. In other words, this dating technique measures the last hot burning event that took place within the hearth and not necessarily the last time it was used.

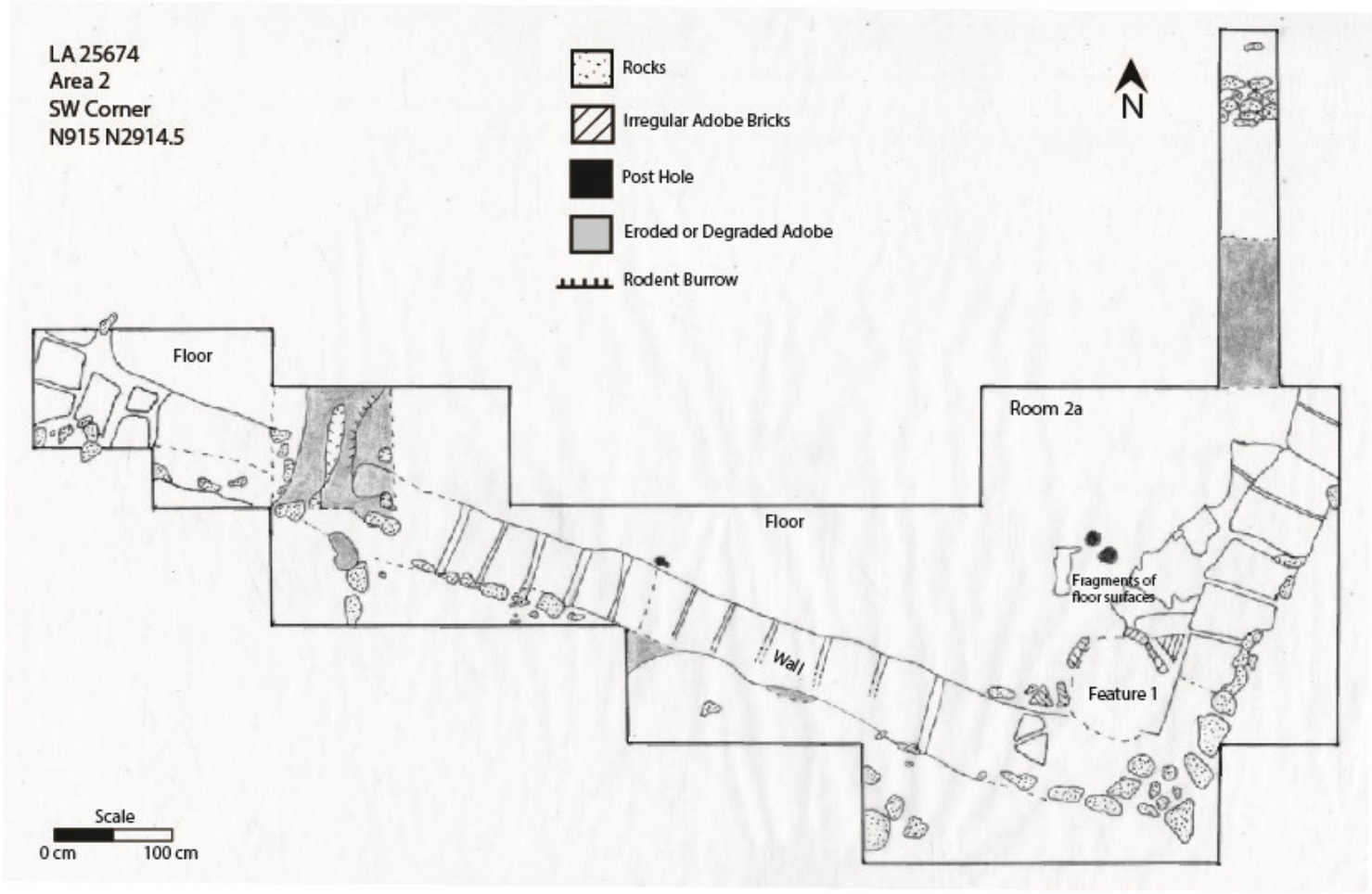


Figure 3-11: Map of Area 2 Excavations

Figure 3-12: Overview of Area 2

Area 3: The third area we explored in an effort to define a more diffuse-looking anomaly thought to be a walled enclosure. Our half by six meter test trench revealed a concentration of large gravel and small stones in the north end of it. This may have been part of a gravel and mud wall that has since melted and/or collapsed. On the south side of this potential wall was a highly compacted surface on which a greater artifact density was found, most likely representing a plaza area. In order to determine the extent of this surface and potential wall feature, a one meter square test unit was placed a meter west of the trench. Both the trench and test unit indicate that the plaza surface begins between 40 and 50 cm below the ground surface.

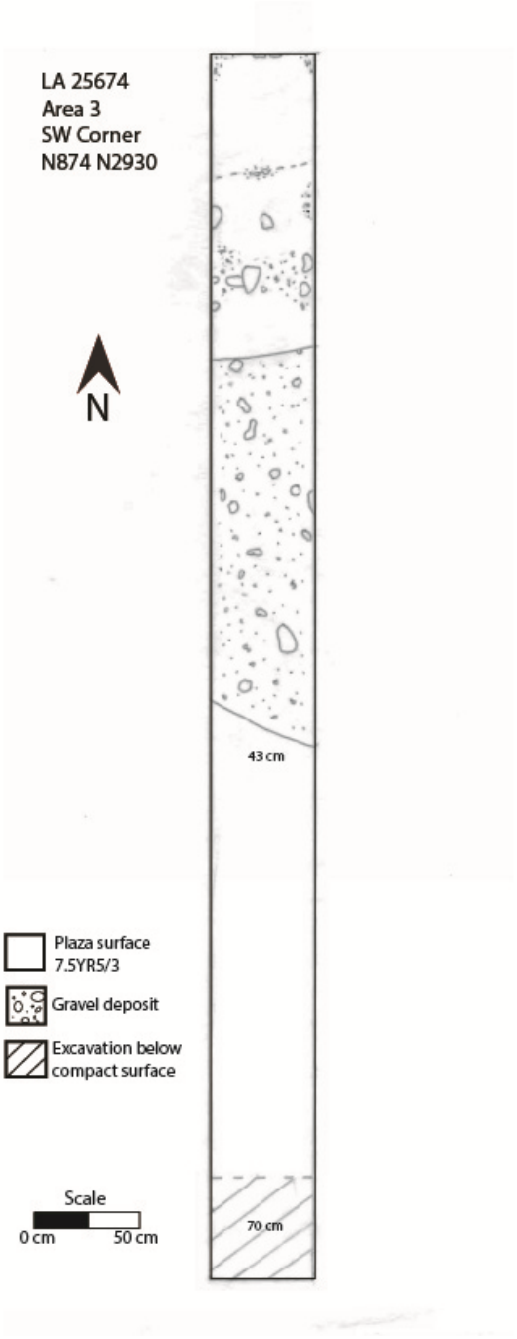


Figure 3-13: Map of Area 3 Excavations

Figure 3-14: Overview of Area 3

Area 4: This excavation trench measured one by seven meters and was placed across a linear feature that ran the length of the site. Based on the map of magnetometry features we

supposed the linear feature to be some kind of wall. However, careful excavation revealed a raised, prepared, mud surface with a series of linear impressions in it. These impressions appear to be rut marks like those made from the wheels of a wagon or cart wheels, implicating that the feature was a road. Though the southern extent of the road was easily determined given the sloping topography of the site, its northern boundary was more ephemeral. Despite this, the road feature appears to be at least six meters wide.

Figure 3-15: Overview of Area 4

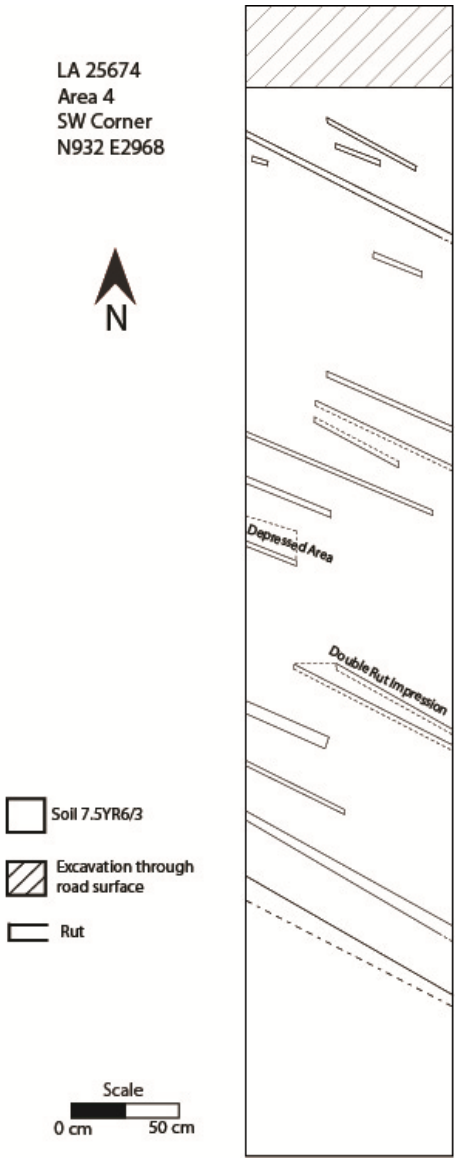


Figure 3-16: Map of Area 4 Excavations

Area 5: An excavation trench measuring one by four meters was placed perpendicular to a linear feature that ran the length of the site. Visible on the ground surface, this feature appeared to contain the remnants of a wall that essentially bisected the site. The trench did reveal a retaining wall constructed of large loosely aligned stones. However, the wall has not been well preserved as some segments are missing.

Figure 3-17: Overview of Area 5

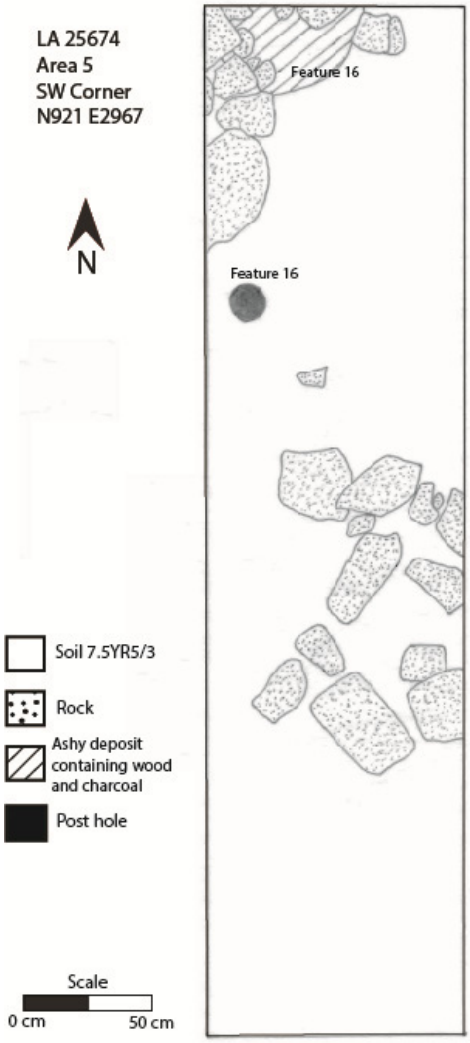


Figure 3-18: Map of Area 5 Excavations

Area 6: A second trench measuring one by four meters was positioned across the northern wall of a large enclosed area situated in the western half of the site. Rubble was clearly visible on the ground surface and excavation of these remains exposed a stone retaining wall constructed of several stones stacked together and set into a shallow earthen bank.

Figure 3-19: Overview of Area 6

Area 7: Area 7 was excavated on the basis of surface remains rather than geophysical evidence. The topsoil in the area was very dark with a higher density of surface artifacts than in surrounding areas, perhaps suggesting a midden. However, once we began excavating our two-by-two square-meter unit, we found two pits dug next to and on top of one another. The pits were filled with ashy soil, charcoal, some large pieces of bone, ceramics (several of which were severely

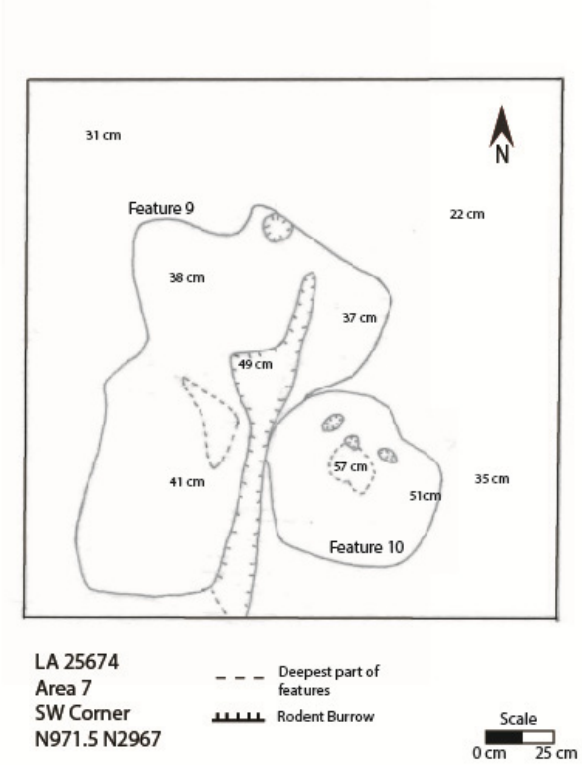


Figure 3-20: Map of Area 7 Excavations

burned), slag, and other smelting by-products. Both pits were dug into sterile soil indicating that the features were likely used only once or for a short duration before they were backfilled. Given the diversity of the artifact assemblage, the differing degrees of burning throughout the collection, and the short-term use of the pits, it seems likely that the feature consisted of two adobe borrow or mixing pits that were filled in with trash and other debris.

Figure 3-21: Overview of Area 7

Figure 3-22: Detail of *ramada* feature in Area 8

Area 8: The fourth structure we explored was located directly north of the southern perimeter wall. The geophysical surveys indicated that only the northern portion of the structure remained intact. Excavation of a 15 square-meter unit area showed that the structure was smaller than those in Areas 1 and 2. The construction of the walls also differed. The walls were narrower than those of the other structures and were constructed using a stone

foundation mixed with poured adobe rather than bricks. The domicile also appears to have had only one-room. However, it is likely that a second room to the south was not discovered by our excavations or has been destroyed.

Although the walls were built using a different construction technique, plaster fragments indicate that the walls were coated in lime or gypsum plaster. Rodent disturbance in the northwest corner of the structure destroyed a portion of the floor, but intact sections in other areas show that the floor was finished using a mud plaster. A small adobe wall protrudes from the exterior northwest corner of the structure, implying a delineation of outside space. A prepared surface was found outside the structure and along its western wall into which three small post holes were placed. These construction elements suggest a *ramada* existed on the side of the house.

Figure 3-23: Overview of Area 8

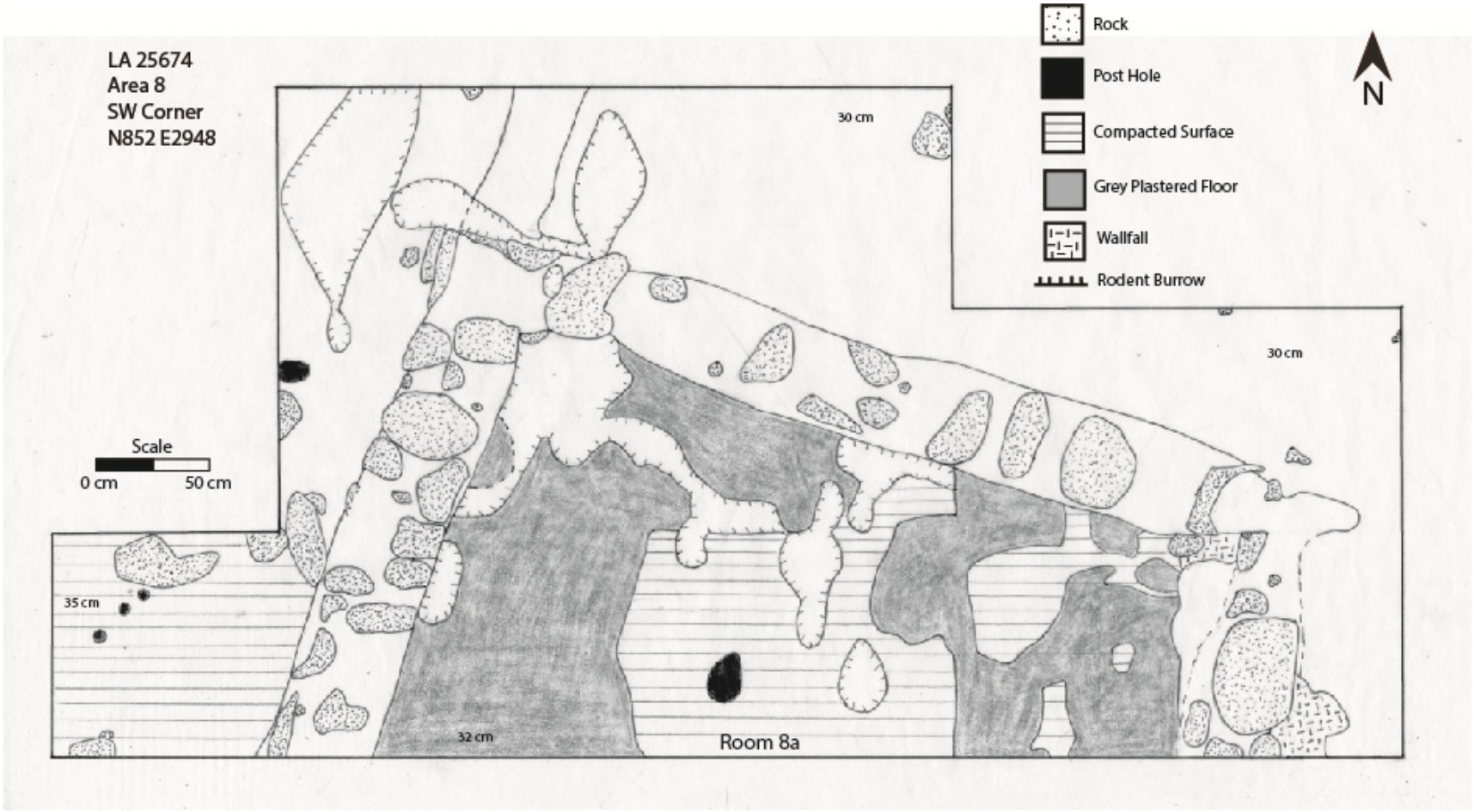


Figure 3-24: Map of Area 8 Excavations

Area 9: Area 9 consisted of a mounded area located in the northeast quadrant of the walled village. This area was magnetically obscured by vegetation and a quickly changing topography yielding poor geophysical results. But surface remains, in the form of artifacts and stone alignments, suggested that the area might contain another domestic structure or some other cultural feature. Excavation of ten square-meter units revealed that the area was most recently used as a corral. The feature appeared to be somewhat circular, consisting of narrow and poorly-made adobe and stone walls. There was also a thick layer of soil that appeared to have a high dung content. A faint impression of what looked like a hoof print was preserved in the compacted surface of the corral floor. In spite of this, much of Area 9 was disturbed by an extensive rodent burrow in the center of the mound, parts of which were still in use. As a result, floor surfaces were extremely difficult to distinguish.

The discovery of several postholes throughout Area 9 suggests this locale was remodeled or repurposed at least once. Moreover, additional exploration of the area around the eastern wall revealed that this narrow stone wall was constructed on top of thick adobe walls. Given the small size of the natural mound upon which this feature was constructed, the heavy adobe walls, and the prevalence of lead slag and other smelting by-products in this area, we believe this feature was initially used for the smelting of lead ore. Two circular depressions of unknown function were encountered in the center of Area 9, but could not be attributed to either the corral or smelter with any certainty.

Figure 3-25: Overview of Area 9

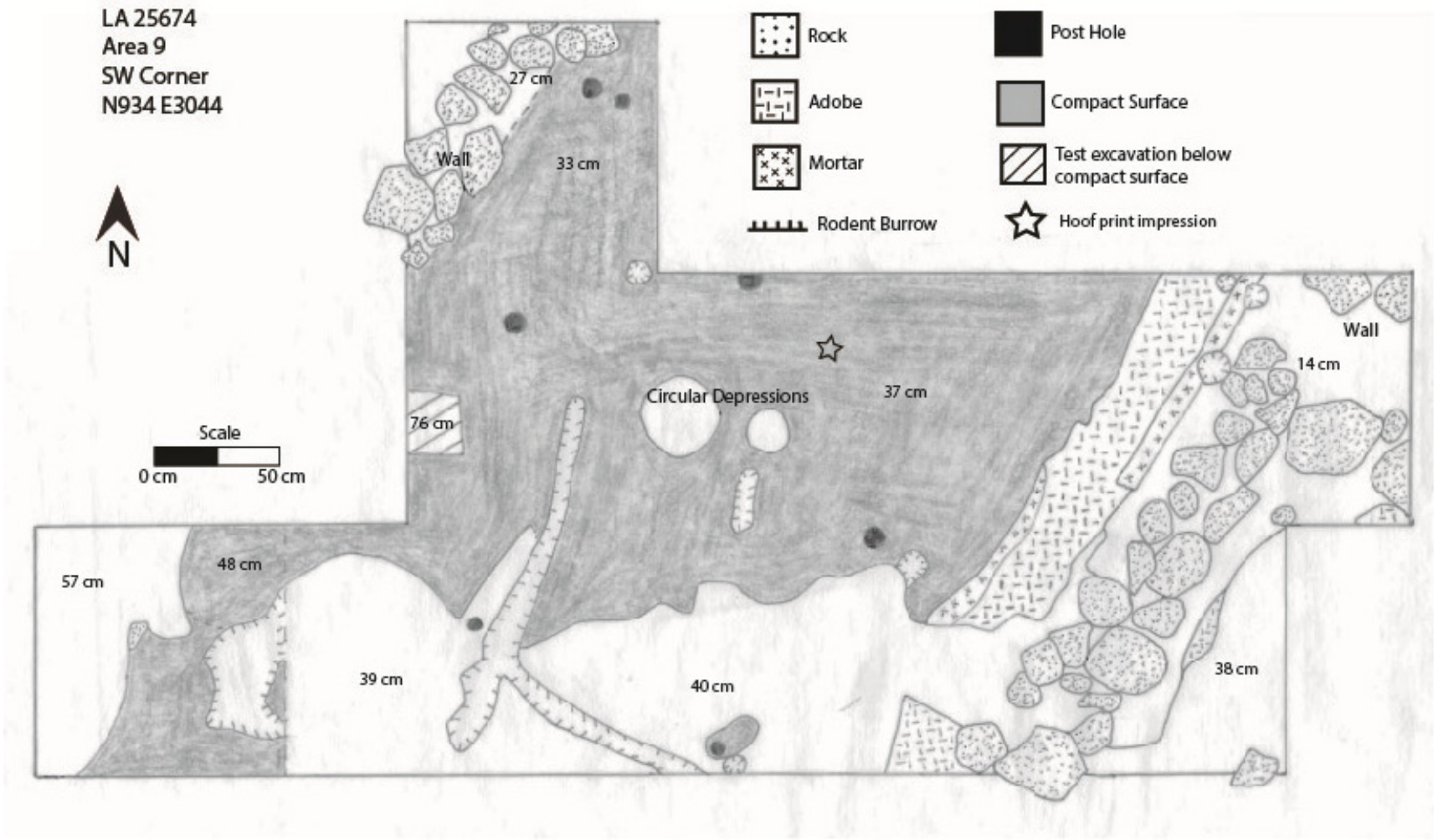


Figure 3-26: Map of Area 9 Excavations

Area 10: The geophysical surveys indicated a small structure in the center of the walled village directly below the intermediate wall that bisects the site. In an effort to test the anomaly for walls or other construction elements, we placed two square-meter units on what should have been the corner of the possible structure. Excavations, however, only revealed a hard-packed layer of dirt that lacked any evidence of architecture. Given the time constraints of the project and our sampling strategy, no further work was conducted in this area. In spite of the results, it may have been possible to discover why the geophysics indicated this geological feature as a cultural anomaly. Expanding excavations to explore different soil compositions and surfaces would have shed light on the characteristics that may have produced the anomaly.

Figure 3-27: Overview of Area 10

Area 11: One square-meter excavation unit was placed directly south of the southern perimeter wall at the western edge of the site in order to sample the disposal patterns of the villagers. Our intention was to discover whether or not there was any evidence of the villagers throwing trash over the top of the perimeter walls. Artifact density did not appear to be any greater in Area 11 than elsewhere on the site. Moreover, the unit was only excavated to a depth of 13 cm below the ground surface before a dense gravel lens was struck, which appeared to be

sterile. The general topography of the test unit and surrounding area suggests that if trash were to have been discarded outside the village walls, it likely washed into the unnamed arroyo to the west or the Las Huertas Creek bed to the south.

Figure 3-28: Overview of Area 11

In addition to providing information on the settlement plan of San José de las Huertas, geophysical survey and archaeological sampling allowed us to identify structures and features across the site. These methods further revealed the ways in which the villagers delineated and used space as well as the construction techniques employed to create such structures and features. What follows is discussion of the architectural data.

Interpretation of Architectural Remains

Architecture frequently comprises the most conspicuous feature of an archaeological site. As a result, archaeological studies of architecture have dealt with topics of construction style and sequence, replication experiments, and detailed material analyses. Such studies have the potential to answer site specific questions as well as provide data for addressing regional issues. In the case of adobe, detailed analyses can tell one where and with what the adobe was made, whether or not some of the constituent materials were brought in from elsewhere, aid in determining the construction sequence of structures, and help identify borrow or mixing pit features.

Given its potential for analysis, samples of adobe were taken from all areas that contained construction materials, which included Areas 1, 2, 7, 8, and 9. Although material analyses were outside the scope of this study, samples were taken so that the determination of liquid and plastic limits, particle size analyses and tests for soluble salts and carbonates could be performed as desired at a later date (after Moore 2004; Teutonico 1988). Samples of plaster were collected for compositional analysis as well. A basic discussion of village layout, construction style and architectural elements is provided here.

Architecture is a human artifact. Indeed, the entirety of the built environment is a product of social and cultural processes (Lawrence and Low 1990). In no place was this more evident than in the small villages and houses of 18th-century New Mexico. The village was the center of social and economic life for colonial New Mexicans. There was

> both art and utility in these old houses [of Placitas and Las Huertas] and their uses were manifold. At once they were home, sanctuary, fortress, storage, and factory. They were dwellings… places where the patron saint of the village was kept; for there were no churches in the villages in those early days. They were the walls within which the people fortified themselves in cases of hostile invasions. Everything the families possessed in the manner of supplies must be stored in their houses, and everything the families wore was made there and everything the families ate was prepared there (Rebolledo and Márquez 2000:155).

The historical record informs us, and the geophysical and archaeological research confirms, that the village of San José de las Huertas was surrounded by a perimeter wall constructed of stone and adobe. An access point, or intentional break in the wall, is discernible in the southwest corner of the walled village. While what appears to be a *torreón* is situated in the northwest corner. The northwest corner of the perimeter wall would have provided an ideal location for such a feature as this portion of the bench above Las Huertas Creek is higher in elevation and more exposed, providing greater visibility as the canyon opens to the west. Any

visitors or raiding parties approaching from the Rio Grande would be easily visible. Although it is common for a *torreón* to jut out from the defensive wall, it seems that this was not possible at this location seeing that the topography immediately to the west of the northwest corner of the walled-village slopes steeply towards an arroyo. Another break was found in the middle of the western perimeter wall, but this appears to have occurred after the village was abandoned. The breach in the wall was likely a result of the construction of a road to Bernalillo in the latter part of the 19th century that fell out of use some time after 1910.

Domestic structures appear to have been placed against the perimeter wall leaving a plaza, or communal area, in the center of the settlement. As the interior of the site is not as well defined by geophysical survey and archaeological excavation, it is probable that small plazas accompanied domestic structures rather than the site containing one central plaza. A cart trail, characterized by a crudely prepared surface marred by rut impressions, bisected the site as well as an interior wall that ran nearly the length of the village. The further delineation of interior village space is indicated by several walls and other linear, but less well-defined, cultural features (see Figure 3-4).

Figure 3-29: Detail of rut impression on cart road

Two mixing or borrow pits filled with refuse and construction debris were discovered in the northwestern quadrant of the site. A corral was also located in the northern portion of the walled village. The corral was somewhat circular and constructed of narrow, poorly-made adobe and stone walls. The floor of the feature appeared to retain a faint impression of a hoof mark and was covered by a thick layer of yellowish soil suggesting the presence of dung. Beneath the

corral walls were thick adobe bricks. The heavy adobe brick walls, presence of ashy soils, and pervasiveness of lead slag and other smelting by-products in the vicinity suggest the corral was initially a smelting feature for lead ore.

Figure 3-30: Corral wall with adobe bricks underneath

Figure 3-31: Detail of burnt construction material from Area 7

Table 3.1: Type of Archaeological Features Excavated

Excavation Areas	Total Units Excavated	Archaeological Feature
1, 2, 8	65%	domestic structure
9	10%	corral
5, 6	8%	walls
4	7%	cart trail
7	4%	borrow pits
3	4%	plaza surface
10, 11	3%	other

The majority of archaeological exploration was focused on domestic structures in order to uncover the economic activities of the villagers, including the local production of goods and the delineation of exchange relations. Another broad goal was to look for intra-site or inter-household variation, while specifically pursuing any material manifestations of identity. Two

construction styles for houses were observed at San José de las Huertas. The structures in Areas 1 and 2 were constructed of adobe bricks placed on top of a foundation of unshaped stones set in an adobe mortar. For all excavated wall segments only a portion of the bottommost course of adobe bricks remained intact.

Figure 3-32: Detail of unshaped foundation stones with adobe bricks from structure in Area 2

In several of the wall segments the natural deterioration of the adobe meant that individual bricks could not always be identified. When intact, adobe bricks measured from 51 to 61 cm in length and 34 to 36 cm in width with an average length of 57 cm and average width of 36 cm. A second construction technique was utilized for the structure in Area 8 and consisted of uncut stone set in adobe mortar. Additional adobe was then poured onto the stone and mortar foundation until the wall was the desired height. This construction technique persisted locally at least until the 1860s as evidenced by a house excavated at the Ideal Site, or LA 8671 (Brody and Colberg 1966).

Regardless of wall construction, interior walls were plastered with one or more layers of adobe, which curved onto the floor to create the floor surface, leaving no sharp angle at the juncture between the floor and the wall. Remnants of white-colored plaster suggest that the interior walls were finished with thin layers of gypsum or limestone plaster. In contrast, the exterior of the walls appear to have been finished only with an adobe plaster as no gypsum or limestone plaster was found on the exterior surfaces of the structures. Because the interiors of these structures were not well lit, white plaster was probably preferred on interior walls to brighten the rooms. However, it was not necessary to treat the exterior walls in the same manner

and adobe mud plaster would have sufficed. The absence of white plaster on all archaeologically-sampled, exterior, domestic walls indicates that the practice of whitewashing the interior of houses and simply applying a mud plaster to the exteriors was the norm.

A *ramada* extending from the western wall of the structure in Area 8 was the only archaeological feature encountered that did not have an apparent correlate in the collection of WPA oral histories from Placitas. There is, however, archaeological evidence for a *ramada* at the Ideal Site (LA 8671). Located on the San Antonio de las Huertas Land Grant, LA 8671 was a three-room house occupied from about 1820 to 1865. In this context, the *ramada* was used to shelter an outdoor kitchen that was enclosed on two sides (Brody and Colberg 1966). In contrast, the construction style of and lack of associated thermal features with the *ramada* in Area 8 at San José de las Huertas suggests that this particular feature served some other function than that of sheltering an outdoor cooking space.

A possible function of the Las Huertas *ramada* was brought to our attention by one of the members of the San Antonio de las Huertas Land Grant Association. In an effort to maintain an open dialogue with the descendant community residing in Placitas, we scheduled a day in which we could host an open house at the archaeological site. The descendant community was invited to tour the site and share any thoughts, stories or remembrances they had. As we came upon the excavations in Area 8, one of the elders noted that the *ramada* feature resembled the outdoor space in which one might have "tied up your goats" (personal communication, July 2003). Thus, this feature could have been used as a temporary corral in which to keep animals when they were not grazing in the neighboring pasturelands, or as a safe haven when the village was being threatened by raiding Navajo.

As the previous examples demonstrate, oral historical accounts of house construction in San José de las Huertas and old Las Placitas are useful in both corroborating and augmenting the evidence found within the archaeological record. Describing a period sometime prior to 1840 on the land grant, Batchen relates that:

> [T]he old houses were built mostly of rocks, of any size and any shape. They were joined together and held intact in a wall with adobe mud, quantities of it, until the walls were as much adobe as rock. The houses were low and the walls from twenty to thirty inches [51 to 76 cm] thick. The ceilings were supported by vigas, the trunks of pines and dried, as they are today, and the ceilings were slender saplings laid evenly and close together crosswise of them. On these saplings was spread a layer of tough, dry grass and over that was spread a layer of adobe mud. The thick mud roof was laid up on top of that. The width of the houses was determined by the length of the pine trunks they could get. In those early days few, very few, possessed beasts of burden. Men and women must bring in their own building material with their own hands or on their own backs. Usually the houses contained two rooms. The windows were small, not much more than peep holes arched high in the thick walls, and the doors were for dwarfs or children, for no others could go through them without doubling over. The floors were adobe mud, made hard by proper drying, and they were not cut into by heels of shoes, for then the people had only tewas (moccasins) to wear, or else they went barefoot. The door and window frames were made of pine logs split into boards by stone axes and stone wedges; for they were all the tools they possessed at that time. The doors were made of these boards put together with wooden pins. If there were any shutters for the tiny windows, they were made in the same way. The house inside and out was plastered with adobe mud. There was left no trace of the rock, and so long as this mud was kept in good condition on those walls the rocks and adobe underneath were unaffected by time or weather (Rebolledo and Márquez 2000:155-156).

The above oral historical account constitutes one of several that attest to the existence of a small window or two situated near the top of household walls just below the roofline. While no standing walls remain at San José de las Huertas to confirm the use of such windows, the presence of dense clusters of selenite near the foundational remains of some structures suggests that they may have been present. Common in its occurrence, selenite is a translucent, tabular form of gypsum that was occasionally used as window panes prior to the availability of glass

(Ferg 1984). Thus, the presence of selenite in and around domestic structures at Las Huertas supports the historical accounts for windows.

Floor surfaces were found in all four structures excavated. Though the degree of preservation varied somewhat, the floors were well prepared and finished with at least one layer of adobe mud. Doorways or thresholds were indistinguishable. The lack of evidence for such features was likely due to two factors: first, the portions of the houses excavated may not have been where a doorway would be situated; and secondly, the amount of wall that remained intact was below the level of the threshold.

Perhaps the most significant feature of domestic architecture was the fireplace. The Spanish *entrada* into New Mexico brought with it such household architectural features as fireplaces, stoves, and outdoor ovens. While the use of the true Spanish or Mexican *estufa* (or stove) was short-lived in New Mexican households, the corner fireplace has become a fixture of Hispanic domestic architecture. Boyd (1958:220) suggests that this was due to the local preference for wood as fuel, rather than charcoal, which required more time and labor to produce.

The typical corner fireplace had a flat, rounded, or bi-faced chimney that dictated the shape of the mantel and hearth—the hearth being raised above the level of the floor. However, some "old" rooms may contain hearths sunken into the floor as a result of multiple remodeling episodes without removing the worn, pitted floor surface. Demi-ovoid fireplace openings were the most common, but square-shaped openings were also known. The throat of the fireplace narrowed and sloped forward just above the back of the fire to prevent the heat from escaping up the flue. Chimneys tended to be no more than the height of two or three adobe bricks, or rocks, above the roof and were frequently topped with an old olla lacking its base (Boyd 1958:222).

At San José de las Huertas, the only interior household feature to leave an identifiable archaeological signature was the fireplace. A fireplace was found in the west room (Room 1a) of the northern structure in Area 1 as well as the southern room (Room 2a) of the structure in Area 2. Typical of Hispanic construction, the fireplaces were built in the corners of the rooms. The fireplace in Area 1 was in fact demi-ovoid in shape with the hearth elevated three centimeters above the floor surface. The Area 2 fireplace was somewhat atypical in form and function. Circular in shape and reinforced on two sides by triangular-shaped adobe bricks, this fireplace had been remodeled at least once in order to accommodate some smelting or forging activities. The lack of fireplaces in the remaining two structures is likely a product of sampling as we did not excavate sufficient area, or in the appropriate locations (i.e. all corners of every structure), to yield fireplace features.

When describing remembrances from her childhood, Mrs. Cleofas Jaramillo recalls seeing the *fogón de compaña*, or bell-shaped fireplace, which was used for cooking in the households at Abiquiú and El Rito. She further describes the *fogón de compaña con tapanco* as a variant with a different style of hood. In her version of this form, the hood over the fire is positioned well below a shelf. A ladder was usually propped against it to permit ascending to the shelf, which could have served as a potentially warm bed (Boyd 1958:223).

Tales from Placitas also tell of the *fogón de compaña*, which was translated as the "family fireplace", probably due to the significance it held within the households of San José de las Huertas and old Las Placitas. For Batchen,

> it was the inside of these old houses that was quaint and different. The kitchen was the living room. In one corner was a commodious fogón compaña (family fireplace) and adjoining it on one side was the tapanco (porch)…The tapanco was a replica of the porch outside carried out in lesser dimensions, being about two feet from the wall, which would constitute its width, and between four and five feet high. The length depended upon the available space from the fogon compaña to the corner of the room. The columns of the

> tapanco formed its front and the even, smooth mud roof made a place to store tinajas (pottery vessels), for these vessels were used for every conceivable household purpose, and they were the only cooking utensils and dishes and containers they possessed (Rebolledo and Márquez 2000:156).

As in many households throughout rural New Mexico, the majority of cooking duties were performed using the *fogón de compaña*. Cooking was carried out over the fire or over the resulting hot ashes after they that had been raked across the hearth. Due to the scarcity of iron in the colonial period, spits and cranes for hanging pots did not exist. Consequently, stones were used to level pots or griddles on the hearth. What could not be boiled, baked, or fried over the fire was cooked out of doors in the *horno* or in a barbeque pit. A third method of cooking consisted of burying food that was well coated with wet mud in the hot ashes of an outdoor firepit (Boyd 1958:222-223). This old cooking technique is still the one that is favored for the preparation of potatoes and green corn.

As is demonstrated in the discussion of architectural remains at San José de las Huertas, the oral historical record has proven to be extremely useful in aiding our interpretation of archaeological data. I will now provide some context for the oral historical sources that were employed in this community study.

Oral Historical Sources

It is fortunate for historians and archaeologists alike that Hispanic New Mexico has a long history of rich oral traditions stretching back to colonial times. From the initial conquest until the early 20th century, Hispanic New Mexicans were fairly isolated from their mother countries, Spain and Mexico (after 1810). Moreover, this northern borderland province boasted few schools. Only children from the wealthier classes were taught to read and write, and these

were mostly boys (Rebolledo and Márquez 2000:xx). As such, the history of the common people was passed down by word of mouth, from elders to children.

In the late 1930s and early 1940s, the administration of Franklin D. Roosevelt sponsored the Federal Writer's Project, which was designed to help impoverished writers during the Depression. As part of the larger federal back-to-work project, the Works Projects Administration sent writers out to collect information and folklore in order to produce an organized system of State Guides. Part of the collecting of information for the State Guides involved interviewing order residents to document culture and history; identifying cultural events that might attract visitors; and cataloging the origins of names given to various places, roads, and streets (Rebolledo and Márquez 2000:xix-xxiii). New Mexico was one of the states that participated in this project.

Lou Sage Batchen was one of about 55 writers working for the WPA throughout the state. It is not known when Batchen moved to the Placitas area, but her husband arrived in 1897 to work as a mining engineer. He eventually bought some land and settled in Ojo de las Casa, located just east of the village of Placitas. Although Lou Batchen was not professionally trained, she did have a long interest in storytelling. In her work for the Writer's Project she concentrated her efforts on interviewing the *ancianos* of Placitas; the descendant community of San José de las Huertas (Forrest 1995:12; Rebolledo and Márquez 2000). A total of 95 narratives were recorded by Batchen with transcription dates ranging from August 1938 to November 1942. And though her informants primarily consisted of village elders, she did collect information from younger residents whose families had strong oral traditions. Contributors to a particular narrative ranged for one to ten and a total of 41 interviewees were involved in the process.

Batchen was physically handicapped and could not get around easily. For that reason, and because her ability to use Spanish was poor, she employed Max DeLara and Christina Gonzales to aid her in the interviews. Max was 12 years old when he began working with Batchen in the early 1930s, and his favorite story-teller was his grandfather, José Gurulé. However, Max left Placitas in 1936 to work in the Civilian Conservation Corps, after which Batchen employed Christina Baros Gonzales to assist her (Forrest 1995:12-13). While Batchen could speak and understand Spanish, she could do neither well. This is evidenced by her frequent use of the wrong tense, agreements, and spelling in the instances where she made use of Spanish phrases (Rebolledo and Márquez 2000:xxxii; Smith 1973:10). Batchen's lack of comprehension of Spanish did not affect much of what was collected, but it did in some instances turn the oral tradition as folk history (what happened emically) into ethnohistory (what happened etically).

Batchen's letters to her supervisors provide insights into the methods she employed during her interviews. As was mentioned, she gathered her material in the presence of her interpreter and the informant. Thus, the villagers would tell Max their stories in Spanish and then he would translate them mentally as he retold them to Batchen. He made a point to mimic the way the stories were told to him as closely as possible, so that she could get the correct tone for each tale. Intently listening, she recorded the narratives on her old typewriter (Forrest 1995:13). Initially she used what she knew from books she had read on New Mexico history to structure her interview. Then, as she progressed, she was able to integrate this information with greater quantities of village history. "It may take many sittings with each source of information, but usually after hours of assorted suggestions and various memory aids they do recall the things

that their fore fathers did, or whatever it is that I am after" (Batchen letter from August 28, 1942 quoted in Smith 1973:11).

When a historical document was mentioned in a session, Batchen tracked it down. And if a family record, genealogy, or governmental report was easily accessible, she would incorporate it into her transcription. Smith (1973:18) attempted to test the reliability of her narratives by cross-referencing local events and people with whom they are connected against census and sacramental records. He discovered that the dates remembered by the informants deviated from two or three years to twenty from the actual incidents; unless Batchen made the proper correction. Thus, the genealogical material is reliable as far back as the founding of the San Antonio de las Huertas Land Grant, as are the major regional events that occurred.

One limitation of her work was that she only wrote down one version of a story despite the number of informants (whether one or eight) she interviewed. Even when the same informant gave different accounts at different sessions a single narrative prevailed. An additional bias was introduced into her work by the fact that most of her informants were members of the Presbyterian Church. Although Batchen was also a member of this church, she was not particularly interested in religion. As such, her lack of familiarity with Catholicism resulted in some distortions in her descriptions (Forrest 1995:13; Smith 1973:12, 15). Therefore, a Protestant bias existed in the sense that few of Batchen's informants were practicing Catholics in addition to her basic ignorance of the religion.

These kinds of pitfalls caused Forrest to state that Batchen's stories cannot be taken literally. A potential consequence of the way in which the narratives were collected,

> Batchen sometimes related different versions of the same story, with varying names and dates. At other times she probably winnowed out contradictory or apparently irrelevant details to make a better story. Some of her informants may also have embroidered their tales with imaginative details to amuse themselves or to cover up failing memories. Even

> Lou, we suspect, was not above adding her own literary details and giving an occasional O'Henryesque twist to the ending (Forrest 1995:13).

Nevertheless, Rebolledo and Márquez (2000:xxxiii) call attention to the fact that such changes are the expected composition of storytelling, and "changing the details of the story, or making them more dramatic, does not necessarily detract from the authenticity of the story itself." The highlight of Batchen's process was that she listed her informants' full names, their ages, and often the relationship they had to other informants and to the original settlers of the San Antonio de las Huertas Land Grant. Furthermore, she periodically included the manner in which her informants learned of what it was they told. For example, in "Dona Tomasa—The Witch Nurse" the informant is the granddaughter of one of the main characters in the tale.

For this study, I relied on the edited volume by Rebolledo and Márquez (2000) as they present Batchen's stories in their original form when they were filed away in the Santa Fe History Archive and the New Mexico State Archives at the termination of the Federal Writer's Project in 1942. The only modifications that the editors made were to Batchen's spelling of Spanish words (e.g. from *arroya* to *arroyo*), and they did this so as to avoid confusion. This contrasts with the stories that occur in *Las Placitas* in which Batchen's had reworked and rewritten the original narratives she collected.

Methods of Archival Research

My examination of community formation and maintenance at San José de las Huertas also relied on the use of historical documents that pertained specifically to this settlement. The use of historical records in the study of the transatlantic colonial period has a fairly lengthy history (Noël Hume 1968; South 1977). Historical sources provide different kinds of information about the past. Sometimes they are corroborative, supporting the data we unearth

through our archaeological endeavors. Other times historical accounts are contradictory (e.g. Fox 1993), and the disconnect between documents and material remains has to be accounted for. Much of the time the documentary record affords elements of both, with a great deal of the historical data imparting information on various aspects of life that are difficult to recover or infer from archaeological remnants.

In order to conduct a comprehensive study of the secular and religious records associated with San José de las Huertas, I combed through the holdings of the State Records Center and Archives at the New Mexico Commission of Public Records and the Center for Southwest Research at the University of New Mexico. After spending a considerable amount of time sorting through a variety of materials at these institutions, I decided that some assistance from a specialist might be necessary. While most records and other source materials are easily accessible, not all are readily decipherable. Scribes, civil officials, and Franciscan priests of the Spanish Colonial and Mexican periods wrote in a Spanish that had yet to be standardized. As such, documents dating to the colonial period are frequently filled with abbreviations, multiple spellings for the same words, and script that is, at times, extremely difficult to read. Given these challenges, Professor Nan Rothschild and I consulted with historian and Spanish paleographer Robert Martinez.

As Mr. Martinez has spent a number of years working with various materials in the archives, he was familiar with the kinds of documents in which we were interested. At our request, he concentrated his efforts on one collection: the Archives of the Archdiocese of Santa Fe (AASF). In order to better inform his search of this ecclesiastical archive, Mr. Martinez drew upon secular documents housed in the Spanish Archives of New Mexico (SANM I, II). The Spanish Archives of New Mexico contain a number of source materials pertaining to the

administrative, civil, legal, and military records of the Spanish Colonial government in New Mexico (1621-1821). However, records prior to 1680 are scarce as most were destroyed during the Pueblo Revolt. It is from this archive that census records, land grant papers, correspondence, and civil or legal actions were obtained.

The Archives of the Archdiocese of Santa Fe include the sacramental records for the Roman Catholic Church in New Mexico. As with the Spanish Archives of New Mexico, few records survive that date prior to the Pueblo Revolt. The archive is comprised of the baptismal, marriage, and death records that served to document major events in the lives of New Mexico's people. Not only do these texts describe genealogical data, they help to illustrate the inter-connecting relationships that existed between families as well. Biological ties were obviously represented through parentage, while fictive kinship was demonstrated through *compadrazgo*, or god-parenthood. *Diligencias matrimoniales*, or marriage investigations, can also reveal much about existing social relationships and normative values. For example, one purpose of marriage investigations was to inquire into the 'validity' or 'soundness' of certain unions (Martinez 2005:23).

The first thing Robert Martinez did to aid his investigation of the AASF was to identify who occupied the village of San José de las Huertas (1765-1826). In order to do this, the names of the 21 founding families listed on the petition for the San Antonio de las Huerts Land Grant were used to identify the family groups that initially settled the area. Census records provided another clue. There was only one census that dated to the occupation of the site. The 1803 to 1807 census for Las Huertas and Bernalillo was employed to discover the families that lived on the land grant after the turn of the 18th century. Thus, the extractions used in this study pertain to

families that either settled the village, or who had established themselves at Las Huertas when a particular documented sacrament was received.

To add depth to the historical portraits of the people who lived at Las Huertas, sacramental records were extracted from surrounding mission centers. San Felipe Pueblo was particularly important as it served as the primary religious center for the community. The villagers of Las Huertas would have had to travel more than 8 miles to the north in order to receive their sacraments from the residing mission priest. Other pueblos in the area, including Sandía, Santa Ana, and Jemez, also yielded pieces of information pertaining to the families of Las Huertas. Furthermore, the Villa de Albuquerque and the hamlet of Bernalillo provided additional sources of historical information on some of the families examined in this study.[1]

While Mr. Martinez focused his attention on the Archives of the Archdiocese of Santa Fe, I worked on gathering documents from the Spanish Archives of New Mexico that concerned the settlement of Las Huertas and its residents. Relevant documents included the petitions and correspondence relating to the settlement of the grant, a census, militia muster roll, a circular requesting the extraction of lead, two disputes regarding property ownership, a petition associated with land inheritance, an attempted murder case, and a communication relating to settlements abandoned on account of Indian raids.

Taken together the methods used to conduct the archaeological, oral historical, and archival research clearly inform the data that was collected and employed in my study of community formation and maintenance at the Spanish colonial village of San José de las Huertas. The next chapter makes use of the various datasets to describe the ways in which community life was ordered at Las Huertas.

[1] Baptismal records were on LDS Film No. 016899. The sources of documented marriages were AASF Roll 28, Frames 889-912 and LDS Film No. 0017003. Burial records were found on AASF Roll 37, Frames 530-575.

Chapter 4:
Structuring Community at San José de las Huertas

This chapter draws principally on archaeological data, in the form of artifact counts and distributions, and oral historical narratives to illustrate the nature of community life at San José de las Huertas. Through the portrayals of village life, its material signatures, community structure, and normative and transgressive behaviors, the exploitation of the rules and resources structuring society by intentioned actors to take social action will become intelligible. Furthermore, the examination of intra-community relationships reveals that one's position within the family (mother, father, wife, son, aunt, and so on), age, gender, and religion were the most significant aspects of an individual's social identity operating within the village.

Information extracted from the oral historical record was synthesized to provide an overview of village life. This section focuses on the physical environment of the village, describing family homes, their meager trappings, the kinds of foods cultivated and eaten, as well as basic economic practices. These activities, and their material signatures, are expounded upon in my discussion of the artifactual remains. Additional sections convey data on the more social and behavioral components of village life.

Village Life

San José de las Huertas was located in Las Huertas Cañón several miles east of the Rio Grande at the foot of the north end of the Sandía Mountains. The little canyon was made fertile by the six springs that watered it, while the surrounding mountains offered water and pasturage for livestock. On a bench above Las Huertas Creek the settlers constructed a walled village with gated entrances that could be locked in the event of an attack. A large number of the houses

were built in such a way that they shared a common wall with the perimeter wall (Rebolledo and Márquez 2000:19). There was a central plaza and among the houses were spaces for animals and small patios.

Serving as home, sanctuary, fortress, storeroom, and factory, the house was the center of the family, and thus, village life. These structures stored all the supplies needed by the household. It was where the family's clothes were made and where everything they ate was prepared. Houses were made of stone and adobe bricks. Supported by *vigas*, the ceilings were constructed of saplings laid side by side over which dry grass and a layer of adobe were applied. The sunken floors were made from an adobe plaster that was dried and polished until it was hard. Walls were plastered inside and out, and an adobe bench was frequently built into one of the walls. The small, high windows and the doors were framed by pine logs that had been split into boards and fastened together with wooden pins (Rebolledo and Márquez 2000:155).

Most houses had two rooms, although there were probably multi-room structures to accommodate larger families as well. One of the rooms functioned as the kitchen and living room space. This room contained a corner fireplace and a cupboard of sorts (or *tapanco*) that held the pots needed for all domestic activities. Valuable household possessions were also stored here. A *mano* and *metate* sat on the kitchen floor along with large pots that contained cooking supplies like cornmeal, flour, lard, and cheese. Across from the *tapanco* adobe bins held other foodstuffs like corn, beans, peas, onions, and other crops that were grown by the villagers. Aside from the household loom, additional furniture was absent—the center of the kitchen floor serving as the eating place for the family. Adjoining the kitchen was the bedroom. Placed to the side and running the length of this room was a long, slender pole which had been embedded into the walls. On the pole hung the blankets woven by the women of the family from the wool of their

goats and sheep. At night the blankets were taken from the poles and laid down on the floor to make beds for the family. When the nights were cold the blankets were used as sleeping bags, but in more temperate weather they were simply made into pallets (Rebolledo and Márquez 2000:156-157).

The economy of Las Huertas was based on agriculture and herding. Goats and sheep were the chief herding animals, while chickens were kept in enclosures near the house. Horses, mules, and burros were used for transportation and the movement of goods, but were rarely exploited for cultivation. Only oxen were used for plowing. The majority of animals were owned by the household, but a few men undoubtedly participated in the *partido* system as well (Rebolledo and Márquez 2000). Agricultural plots were fairly small and crops were grown utilizing both dry farming and irrigation techniques (Smith 1973:32). The principal crops were wheat, corn, beans, and squash. Onions, chili, and herbs were also cultivated. Fruit trees were planted, and grapevines produced both table and wine grapes. A low-grade tobacco called *punche* supplemented the major crops.

Hunting served to supplement household incomes. Deer, antelope, and bear were hunted with bow and arrow in the Sandía Mountains, while grouse and wild turkey were captured with traps. Given the difficulty of taking them down, bears were largely avoided—except by the most skilled of hunters. Juan Archibeque was one such man who always promised to return from his hunting excursions with bear grease for the women of the village. On occasion, men from Las Huertas also traveled some distance to the Plains (east of the Pecos River) in order to hunt bison. Their kills were dressed on the spot, where hides were prepared and the meat cut into strips and dried for the ease of transporting them home. Buffalo hides were necessary for the villagers as they were used to make *tewas* (or moccasins), articles of clothing for men, and the rugs that

women not only used to cover the floors of their homes, but also in the cleaning and preparing of wool for spinning (Rebolledo and Márquez 2000:188-189, 408).

Trade was another important economic pursuit. Plus, it afforded the residents of Las Huertas a chance to leave the bounds of their grant. San Felipe and other nearby pueblos and villages satisfied the majority of the villagers' needs. Goods like sheep or goat, grain, cheese, and milk were exchanged for pottery and textiles. Such trade networks are corroborated in the archaeological record, as the most of the ceramics used in the village appear to have been produced by local pueblos. The villagers also engaged in the more regional trade fairs that took place periodically throughout the year. The markets in Santa Fe likely provided an opportunity to earn some currency (Smith 1973:33, 104). Even less frequent was the participation in the caravans that traveled up and down the Camino Real because those trips required individuals to be absent from home for several months at a time (Rebolledo and Márquez 2000). The small amounts of majolica and other lead-glazed earthenwares found within the village may have come from the trade caravans traveling up the Camino Real from Mexico City.

Regardless of product origin, the exchanges that took place at market were of two varieties—trade with relatives and trade with non-relatives. Trading with relatives, including *compadres* and *padrinos*, was preferred. This was because kinship served as the primary force that structured the social and economic lives of the villagers of San José de las Huertas—in fact, it could be said that it was kinship that ordered the community as a whole.

The Material Signatures of Village Life

An archaeological site offers many potential kinds of information, from what its inhabitants were eating or wearing to how they constructed their spiritual lives. The material remains collected from our excavations at Las Huertas help to further illuminate the nature of village life as it was related in the oral historical archive. Keeping with the research goals of the project, a fundamental objective was to generally describe village life as it was evidenced in the archaeological record. More specifically, artifact analyses were aimed at revealing the economic practices of the villagers. This included determining subsistence practices and the onsite production of goods as well as trading practices among the villagers and their neighbors. The collections were also examined for intra-site variability to discern any socio-economic differences between households. However, this could not be accomplished for every artifact class due to the small assemblage sizes for some categories. Where appropriate, assemblages were compared to others from Spanish colonial New Mexico in order to contextualize the socio-economic practices of Las Huertasanas within the larger cultural milieu of the province.

While all artifact classes provided data on the various aspects of the economic lives of the villagers, the artifacts as a whole were indicators of the overall wealth of the community. Displays of the different vectors of social identity within the material record were less recognizable and had to be inferred from a number of datasets. Consumption patterns were more strongly suggested by ceramic and faunal data, though processing activities were better reflected in the lithic and ground stone assemblages as well as the artifacts associated with metalworking. Again, social identity is subtle in the archaeological record. But when evaluated in conjunction with the oral historical and archival data, the different roles and practices of social actors start to become visible.

"Food is central to our sense of identity" (Fischler 1988:275). Rather than constitute a simple form of sustenance, foodways afford a singular insight into any culture. The cluster of activities that surround cooking and eating, and the ways in which food is classified, reflect a myriad of cultural practices; including what constitutes food, what is eaten when, rules of propriety and conduct, gender and age associations with foods, taboos, food combinations, and whether a food is considered harmful or healthful (Fischler 1988). The result is that cuisine serves as a central site, and tool, for identity formation and expression.

Several studies have demonstrated that foodways provide potent symbols of personal and group identity, forming a foundation of both self-identification and a sense of common membership in a larger, bounded group (e.g. Prasad 2006; Warner 2001; Wilk 1999). The link between food and identity may also be subtle amid a population, with consumption patterns differing between private domestic spheres and public or ritual ones (Shuman 2008). More broadly, food can serve opposing semiotic functions. "It can serve to indicate and construct social relations characterized by equality, intimacy, or solidarity; or, it can serve to sustain relations characterized by rank, distance, or segmentation" (Appadurai 1981:496).

The thing about food is that it is consumed every day, often multiple times throughout the day. As such, the behaviors surrounding meal selection, preparation, consumption, and disposal become habitual. These activities, which are learned and performed throughout one's life, have the added benefit of leaving behind material residues. The examination of such residues allows us to begin to untangle the social relationships in which food and cuisine were enmeshed. In this study, the remnants of culinary practices are primarily evidenced in the form of ceramics and botanical and faunal remains, although stone implements contribute some data as well.

Ceramics

For analytical purposes, the ceramics examined by this project were divided into two main categories. The first includes the indigenous pottery made in New Mexico by Pueblo peoples and culturally Spanish (or Hispanic) potters. The second grouping encompasses all wares that were imported into the province from other locations. In this case, Colonial Mexico and Great Britain were the manufacturers. As ceramics comprise the majority of the artifact assemblage at San José de las Huertas, a good deal of attention was paid to the methods used in their analysis. The assemblage posed some analytical challenges given the fragmentary nature of the artifacts and the prevalence of utility wares. Consequently, traditionally-defined historic types were used to contextualize the analysis but sherds were, for the most part, not grouped into these categories.

Indigenous Ceramics

There is no question that pottery production and use has been significant throughout the American Southwestern prehistoric and historic past for native peoples and archaeologists alike. The study of such ceramics has been used to address a number of issues; some of which include technological change, trade, migration, ritual practice, identity expression, craft production, ideological trends, and consumption activities. In order to address many of these issues archaeologists have relied on ceramic typologies.

A. V. Kidder created the first chronologies for the proto and early historic periods based on ceramic typologies he defined at Pecos. Several others have built on that seminal research, expanding its applications in both time and space. For the late colonial period in New Mexico, scholars such as Mera (1991), Frank and Harlow (1973; 1990; 2003; 2005), Batkin (1987) and

others have been critical in the analysis of decorated Pueblo-made pottery. While this body of work is extremely valuable in analyzing motifs and charting their progression through time as well as differentiating designs and assigning them to various Pueblos, much of it is based on the assumption that one has access to whole pots. This is typically not the case in most archaeological situations, particularly at Las Huertas where the ceramic collection is characterized by highly fragmentary sherds.

Another issue pertains to the large quantity of utility and plain wares found at historic sites. Many of these wares can be difficult to define with any certainty as there appears to be a great deal of local variability, bringing to the fore the question of who was really producing these widely-used ceramics. Following excavations at Pecos, Kidder and Shepard (1936:319-320) described two kinds of striated utility wares: faint and heavy varieties. They posit that the faint-striated type dates from AD 1500 to 1700, while the heavy-striated variety is later (1700-1838). Both types have distinctive exterior striations caused by rubbing the pot with a pliable tool, but the interior finish ranges from rough to burnished. The paste is gritty and friable, made from silty clay tempered with locally available crushed rock. Vessel forms for this gray to black-colored pottery primarily include jars and bowls; the bowls likely represented by sherds with well polished interiors (Ferg 1984:35). Warren and Snow (1973) reported a similar striated ware that they called Santa Cruz Striated at Las Majadas.

Ferg identified heavily-striated pottery during his excavations at Las Huertas and in his report describes a bowl of this type (measuring 32 cm in diameter and 22.6 cm tall) collected from San Felipe Pueblo by Francis H. Harlow in 1965. Harlow's record of the conversation with the woman who sold him the pot indicates that it had been in her family for many years. Interestingly, the temper of the bowl was identified as vitric tuff, which indicates it might be

Tewa in origin (Ferg 1984:37). The ceramic assemblage from the Ideal Site near Placitas provides further evidence that heavily-striated pots had limited production dates in the 19th century as no specimens were found at this Spanish-American homestead, which is presumed to have a beginning occupation date after about 1850 (Brody and Colberg 1966; Ferg 1984:35).

Figure 4-1: Sherds of Heavily-striated Utility Wares from Las Huertas

Carnué Plain (occasionally referred to as Carnué Utility) is another utility ware found on Spanish colonial sites with some abundance. Thought to have been produced by local Spanish-American households, Dick (1968:84-85) defined this type as having semi-polished interiors with the exterior surface being scraped or wiped. Course to fine striae are created by pulling the temper grains, which consist of medium to coarse sub-angular to sub-rounded sand, across the surface of the vessel. The pots are light reddish brown, black, and light gray to gray in color and occur in the form of jars and bowls. Wares synonymous with this ceramic include Manzano Coarse Ware (Hurt and Dick 1946), Plain Red "Brick" ware (Toulouse 1949) and late, heavily-striated pottery (Kidder and Shepard 1936): indicating a gradation between heavily-striated and Carnué Plain. However, at Las Huertas there appears to be a fairly clear distinction between sherds that were finished with

Figure 4-2: Utility Ware Sherds from Las Huertas

heavy striations as opposed to those that were merely wiped leaving a grainy, rough surface.

Micaceous wares are also found with varying frequency on a number of historic period sites. Carrillo (1997) identifies at least five types of micaceous pottery as being associated with Spanish-American sites: Manzano Micaceous, Cimarrón Micaceous, Vadito Micaceous, Peñasco Micaceous, and El Rito Micaceous Slip. However, it should be noted that other micaceous types have been recorded at Spanish-American sites as well (e.g. La Puente and the Trujillo House in Rio Arriba County). Although there is a lack of consensus by scholars as to the origins of the micaceous pottery produced during the 18th and 19th centuries, we do know that it was manufactured by Pueblo, Jicarilla Apache, and likely even Indo-Hispano potters.

Levine (2004:155) differentiates between three varieties of micaceous wares in the northern Rio Grande: (1) pots tempered with mica or mica schist; (2) pots finished with a mica slip; and (3) pots made from residual clays containing mica flakes. Despite these proposed categories, it can be difficult to distinguish residual clays from a paste that has had micaceous rock added to it. Nevertheless, differentiating between pots constructed from micaceous clays and those made from a non-micaceous paste with a mica slip appears to be a valuable distinction to make (e.g. Levine 2004; Sunseri 2009).

Apache micaceous types include Ocate, Cimarrón, and Chacon types. While all are characterized by vessels with square rims, there are differences in paste composition and thickness. Ocate and Cimarrón pots were similarly constructed from a laminated micaceous paste in which the interior and exterior surfaces were commonly smoothed with corncobs. Vessel thickness is perhaps the most significant variable between the two types. Chacon Micaceous has a non-micaceous clay body usually tempered with quartz, feldspar, and a small

amount of mica schist that has been finished with a mica slip (Carillo 1987; Eiselt 2006; Gunnerson 1969).

Peñasco and Petaca Micaceous constitute the category of mica-paste ceramics not manufactured by Apache potters. Comparable culinary wares, these round-rimmed vessels were made from micaceous clays or clays having mica temper. The vessels were typically unslipped, though micaceous slips do occur. Peñasco Micaceous is believed to be a Puebloan ware and was described by Dick (1968) at Picurís Pueblo. Petaca Micaceous may also be Pueblo-made, but Carrillo has suggested its manufacture by Indo-Hispano potters as well (Moore et al. 2004:18). Mica-slipped types include the culinary wares of Vadito and El Rito Micaceous. Made at Picurís Pueblo from non-micaceous clay tempered with sand, Vadito pots have rounded rims and rough surfaces covered with mica slip (Carrillo 1987). Largely found in the El Rito-Abiquiú and Picurís-Taos areas, El Rito Micaceous may be an Indo-Hispano-made ware. Also made from non-micaceous clay, this ware tends to be thinner than Vadito Micaceous with smoothed interior and polished, slipped exterior surfaces (Dick 1968). Regardless of specific type, micaceous forms consist primarily of bean pots and water jars, although molded bowls, flange plates, and shallow bowls have also been recovered. In addition, small handled pots known as *atolé* cups are documented, as well as candleholders and *comales* or griddles (Carrillo 1997).

The ceramic materials recovered from Pecos further led Kidder and Shepard (1936:542-544) to conclude that Plain Red and Plain Black wares came into general use following the Pueblo Revolt (ca. 1694). They found the red wares to be largely tempered with sand, while the black wares were almost evenly divided between tuff and sand temper. The tuff-tempered sherds are usually thinner with a better smoothed surface and a paste homogenous in appearance.

Containing visible grains of course sand, the paste of the sand-tempered sherds is not as fine as those tempered with tuff.

Figure 4-3: Plain Ware Sherds from Las Huertas

The categorization of red wares is complicated by the identification of several varieties. In addition to Plain Red, other red wares have been classified as Tewa Red, Polished Red, Salinas Red, and Posuge Red. While some researchers conflate these varieties, others have tried to differentiate between them. Defined by Toulouse (1949), Salinas Red has an origin date of about 1620 but no clear termination date. This unslipped ware is tempered with fine sand and is described as ranging from cream to orange to red in color. The pots are semi-polished producing a matte to glossy finish that exhibits a great deal of smoothing or tooling marks. Vessel forms consist of bowls, soup (or flange) plates, high neck jars, cups, and candlesticks.

Tewa Red (also called Posuge Red or Polished Red) is defined by its highly polished, undecorated, red-slipped finish and was produced from 1625 to 1920 (its classic abundance ranging from 1650 to 1760). Although Mera (1991:12-13) may have initially defined the ware based upon the misidentification of the red-slipped, undecorated pieces of Tewa Polychrome jars, the type has since proved to be a valid category of classification as it is the oxidized version of Kapo (or Tewa) Black. The paste of Tewa Red is tempered mostly with tuff and the occasional granitic inclusion, sand being rare. Bowls are the most common vessel form, although soup plates also occur, and jars are scarce (Harlow 1973:42-43).

Having the same production dates as Tewa Red, the paste of Plain Red is coarser than that found in both Tewa Red and Salinas Red vessels. Plain Red pots tempered with tuff have been associated with the Pajarito Plateau, while those tempered with sand, sandstone, and siltstone are associated with the Pecos area. Most vessels are not slipped, although about 20% were at Pecos. Pots are well smoothed on their exterior, creating visible horizontal finish marks. Various shaped bowls, canteens, and soup plates range in color from orange to brick red (Kidder and Shepard 1936:287-290, 541-544; Kidder and Amsden 1931:131; Batkin 1987).

Kapo Black appears to have been the companion ware to Tewa Red. It was produced by placing the pot in a reduced oxygen atmosphere near the end of the firing process. Names synonymous with Kapo Black have included Tewa Black, Black Polished Ware, Manzano Burnished Blackware, and Kapo Gray. The ware is characterized by its high polish and gray to black lustrous appearance. Kapo Gray is unslipped and tends to be slightly less polished than Kapo Black. There are no red wares corresponding to Kapo Gray as a gray ware would turn tan in an oxidizing fire. As such, Harlow suggests that Kapo Gray predates Kapo Black with an origin date of about 1650. The production of Kapo Black is thought to have emerged from Kapo Gray with the addition of a red slip to the body shortly after the Reconquest. Thus, the ware has a date range of 1650 to the present, its classical abundance being 1700 to 1760. After 1760, vessel forms and paste formulas begin to change as village specializations became more marked (Harlow 1973:40-43; Mera 1991:12-13).

Figure 4-4: Burnished Ware Sherds from Las Huertas

Kapo Black was manufactured from tuffaceous clay to which fine to very fine sand was added as well as the occasional pumice. Tuff temper is more common in vessels from the Pajarito Plateau, sand temper predominates in areas peripheral to the Pajarito, and pots from the Nambe-Pojoaque area were made from pastes that contained mica. Vessel forms include high-necked and globular jars, bowls, and flange plates, with jars being the most common form (Dick 1968:82-83; Harlow 1973:40-41; Kidder and Shepard 1936:291-296, 549-551).

In contrast to Kapo Black, Plain Black is predominately a jar form made from a sand-tempered paste that is not as fine or homogenous. The vessels are unslipped, of thicker construction, and not as well finished or burnished as Kapo Black. The pots are tempered with sand (which is sometimes fine) that often contains inclusions of quartz and feldspar as well as less frequent coarse particles of sand, sandstone, and limestone. Plain Black dates from 1625 to 1920 with a classic abundance of 1650-1760 (Kidder and Shepard 1936:287-290, 541-544). Given the local variability that occurs in the manufacture of these wares during the latter part of the 18th century, there may be somewhat of a continuum between Plain Black and Kapo Black. However, sherds with a high polish and tuff temper remain the distinguishing traits for Kapo Black.

The diversity of black wares for the late historic period is further evidenced by Brody and Colberg's identification of three types at the Ideal Site. One is classified as a utility ware (possibly Yupa Plain), another is a burnished black ware with pulverized tuff temper, and the third type ranges in surface color from gray to black, and is occasionally brown or red. The surface finish of the latter varies from poor to fine, and the tuff temper is visible macroscopically. Since this type could not be associated with any of the local pueblos, Brody

and Colberg (1966) tentatively suggest that the pottery might be Indo-Hispano-made. In spite of this, they clearly state there were no indications that any pottery had been made at the site.

Additionally, Ferg notes the presence of a black ware with sandy temper and of unknown manufacture at Las Huertas. Approximately a third of the burnished black ware recovered from his work at the site had sandy temper, rather thick walls, and a poorly polished surface. While the source of the sherds remains uncertain, he maintains that they are not Tewa in origin as they contrast markedly with the Kapo Gray and Kapo Black present in the assemblage (Ferg 1984:358-41). Likewise, Wilson describes a "smudged black ware" analogous to Kapo Black at the historic site of Valencia (ca. 1750-1840). The surfaces of this black ware are often not as well polished and are less likely to have been slipped prior to firing than with Kapo Black. Moreover, the pastes used in pot construction contain locally-available tempers and were similar to those used in the manufacture of Carnué Plain and Isleta Red-on-tan vessels. At Valencia, the paste of Isleta Red-on-tan contained fine tuff or fine sand. In contrast, the Carnué Plain was tempered with sand, sandstone or granite; reflecting the use of the sandy riverine clays that occur along the Rio Grande. The temper for Isleta Red-on-tan tended to be much finer and uniform in size than that of Carnué Plain, even though there was some overlap between the two types (Wilson 2001:44-46).

Both Ferg and Wilson suggest that the burnished black wares from Las Huertas and Valencia may correspond to Hurt and Dick's (1946:282-283) Manzano Burnished Black, which Dick (1968:82) later considered to be synonymous with Kapo Black. Hurt and Dick describe Manzano Burnished Black as being a highly polished but streaky black ware tempered with fine quartz grains. Vessel forms included bowls, flared-rim jars, and soup plates. However, by indicating that the burnished black wares at Las Huertas and Valencia may be Manzano

Burnished Black, Ferg and Wilson are trying to distinguish between Tewa-made burnished black wares (i.e. Kapo Black) and imitations made elsewhere (e.g. Manzano Burnished Black).

Smudged black wares were originally associated with the northern Tewa ceramic tradition (Mera 1991) but have been documented at Indian and Hispanic sites from southern Colorado to the lower Rio Grande (Dick 1968; Levine 1990). Their presence at several Spanish-American sites has led some to suggest that Indo-Hispanos themselves were also producing this ceramic (Carrillo 1997; Dick 1968; Levine 2004). Nevertheless, the range in finishes and pastes supports Harlow's (1973:30-41) supposition of the emergence of local production centers or "village specializations" of black ware in the latter part of the 18th century.

Red-on-tan pottery essentially constitutes the transitional decorative form between plain wares and polychromes. Because of this, red-on-tan wares (e.g. Isleta Red-on-tan, San Juan Red-on-tan, Casitas Red-on-brown) may have been produced by a number of ceramic-producing centers during the historic period. Casitas Red-on-brown, originally named Manzano Thin Red-on-buff by Hurt and Dick (1946), describes a buff or brown bodied pot to which red slip was applied in a thick band to the interior and exterior rim of the vessel. The red band on the pot's exterior never extends further than a third of the way down the vessel. Other decorations consist of purposeful splatters, swirls, loops, "bull's-eyes", and dribbles painted in red. The pots are stone smoothed inside and out with a high polish being rare. Vessel forms include bowls, wide-mouth jars, pitchers, and flange plates, which occur with the most frequency. The interiors of

Figure 4-5: Red-on-buff Ware Sherds from Las Huertas

some bowls are smudged creating a black or red on gray effect. The friable paste is typically tempered with sand and a little tuffaceous clay in areas where tuff deposits occur. Although there is some inconsistency in its proposed period of manufacture, Casitas Red-on-brown conservatively dates from 1730-1860 (Carrillo 1997; Dick 1968:80-81). Due to its pervasiveness at Spanish-American sites and the employment of local tempers in the paste, Dick proposes an Indo-Hispano manufacture for this ceramic type.

As was inferred previously, San Juan Red-on-tan and Isleta Red-on-tan are similar to Casitas Red-on-brown; the chief difference between the wares being the addition of red decorative elements to the banded designs on Casitas Red-on-brown. A red slip was typically applied to the upper two-thirds of San Juan jars and in a wide band at the exterior rim of the bowls. Isleta Red-on-tan vessels mainly took the form of bowls and soup plates, and appear to represent a southern version of San Juan Red-on-tan (Batkin 1987; Frank and Harlow 1990). Most of the red-on-tan sherds found at Valencia were thought to have originated at Isleta given the site's proximately to the pueblo. Tempered with fine tuff or fine sand, Wilson argues that these sherds would have been classified as San Juan Red-on-tan or Tewa Red had they been recovered from sites in the Tewa Basin since the pueblos in this area were known for their use of fine tuff temper (Frank and Harlow 1990; Wilson 2001).

It is likely that red-on-tan pots were produced by some pueblos along the middle Rio Grande as well. Harlow (1990: Plate 60) describes the provenance of a red-on-tan storage jar to which red slip has been applied to the top third of the vessel. Though this large jar has an appearance characteristic of San Juan pottery, it is tempered with river-worn sand. Isleta, Santa Ana, and San Felipe Pueblos all used an orange-tan clay containing river-worn sand for pottery making. Despite the resemblance in pastes, Harlow concludes the jar must have been made at

Santa Ana because potters at this pueblo were producing large utility jars and the only traditional pottery made after 1700 at Isleta and San Felipe was undecorated. Therefore, the various historic ceramic types in which the upper portion of a tan or brown pot has been painted with a red slip may correspond to minor areal variations of a widespread technology that crosscut ethnicity and is in part based on differences in pastes and tempers available along the Rio Grande (Wilson 2001:45).

White wares produced during the historic period are less well understood than other slipped types. Marshall and Marshall interpret a white-slipped, lightly-burnished ceramic recovered at Casa Colorada del Sur as a decorated variant of the Carnué Plain tradition, which Carrillo (1997:95-99) calls Casitas White-slipped or Casitas White-banded. Although this pottery type is not well defined by either Marshall and Marshall or Carrillo, by linking it to Carnué Plain and the Casitas ceramics they are advocating it was made by Indo-Hispano potters. Another indeterminate white-slipped pottery called Salinas White can be found in the type collections at the Museum of New Mexico (Wilson 2001:46-47).

Due to the lack of formal definitions for these types and the likelihood that the white wares uncovered at Valencia could have been produced by either potters from nearby Isleta Pueblo or by local Indo-Hispano potters, Wilson termed the white-slipped pottery he found Valencia White. This white ware is characterized by a white slip that is applied over one or both surfaces and lacks any additional decorations. The slipped surface, which may or may not cover the entirety of the pot's surface, is often thin and streaky with a slight polish; giving it the appearance of Puname rather than Tewa polychromes. Vessel forms included mostly bowls and soup plates constructed of pastes and temper similar to that of the locally-produced Isleta Red-on-tan which grades into Carnué Plain on some specimens. Similar to Casitas White, the range

of this ceramic type includes Spanish-American sites south of Albuquerque and the Rio Abajo country (Wilson 2001:47). As such, Las Huertas is likely to be outside the distribution area of the majority of white wares.

While white wares appear to be restricted to the southern Rio Grande area, Snow (1982:260) makes the following observation regarding pottery production at Pecos. "Soup plates were almost exclusively red-slipped, in conscious contrast, perhaps, with the white-enameled Mexican majolica forms; although Pecos potters, perhaps on request, made white-slipped soup plates and chalices." Building on the notion of Spanish colonial sensibilities for "white" china, Wilson (2001:56) suggests that Valencia White was inspired by the undecorated forms of majolica manufactured in Mexico City. The frequency of flange-plate and bowl forms, and the presence of few jars, implies Valencia White was produced to meet the needs of impoverished colonists who desired the status associated with majolica.

During the historic period a variety of well-made and somewhat distinctive polychromes were made in different regions or Pueblo provinces. Given the significant amount of research conducted and information published on these types (e.g. Batkin 1987; Frank and Harlow 1990; Harlow 1973, 1990; Harlow and Anderson 2005; Harlow and Lanmon 2003; Lanmon and Harlow 2008; Mera 1991), it is normally fairly easy to differentiate between the historic pottery types produced throughout the Pueblo world. These types are based on characteristics of paste, temper, paint color, and design styles known to have been utilized by Pueblo potters residing in different areas. The distinctive ceramic traditions that subsume the various polychrome types in part, but not fully, correspond to groups associated with distinct cultures and languages.

Methods

One challenge with which I had to contend in my analysis of the ceramic assemblage for Las Huertas was that fact that it is composed of a substantial number of small-sized sherds. The fragmentary nature of the collection can be illustrated by the average sherd size, which is 2.65 cm for an assemblage totaling 6745 specimens. It must be remembered that the abandonment of San José de las Huertas was planned and presumably took place over a number of years. This gave the villagers plenty of time to gather their belongings and to take with them the items of their choosing. As a result, it is not surprising to find that the site has the appearance of having been "cleaned" before the villagers left for safer locations.

As a review of the major ceramic types for the latter part of the Spanish colonial period shows, solely relying on existing typologies for ceramic analyses can be problematic. Because of the variability surrounding many of these types and the fragmentary nature of the ceramic assemblage collected at San José de las Huertas, I decided to move away from traditional type names and focus my analyses on documenting the physical attributes of the sherds. In order to do this, the provenience, size, thickness, weight, degree of burning, paint type (where applicable), vessel form (where distinguishable), exterior and interior finishes were recorded for every sherd in the assemblage (see Table 1 in Appendix B for complete description of attributes recorded). Finish attributes included the degree of burnishing (or lack thereof), whether or not the vessel was slipped, and the color of the sherd. For all sherds measuring 2 cm or greater in length, a clean surface was created along a broken edge from which the paste and temper attributes could be recorded as well. Using a Bausch & Lomb stereomicroscope at 1.0x-7.0x magnification, paste/temper types were recorded for 5082 sherds.

Following my microscopic examination of the sherds, 24 paste types were identified. Some of these pastes types occurred only once as they belonged to sherds that were not contemporaneous with the occupation of the village site. The 24 paste types were then grouped into ten based upon temper compositions, which include crushed basalt, basalt/sand, basalt/tuff, not tempered (to which no additional tempering substance was added to the paste), pumice/ash, pumice/tuff, crushed quartz, sand, sand/pumice/tuff, and tuff. Although some of these temper compositions are similar, they were kept as distinct categories in the event that the geologic composition of the region becomes explicitly defined in the future.

One by-product of this descriptive method of classification was that paste compositions tended to be given primacy over other characteristics and were used as a principal category from which to organize and talk about difference and similarity within the assemblage. In an effort to make the data somewhat comparable to existing typologies, surface treatment and sherd color were combined with temper traits to assign specimens to various categories, which may or may not have ethnic, temporal, spatial, and functional implications.

Non-contemporaneous Puebloan Wares

Fifty-three sherds were unearthed during archaeological investigations at San José de las Huertas that predate the occupation of the village. These included 39 prehistoric sherds dating to various time periods and 14 fragments of Rio Grande Glaze Wares. The glaze wares were not identified as to type (e.g. Group/Glaze A through F) and, thus, collectively date from AD 1315 to 1700 (Wilson 2005). Where possible, some distinction was made among the prehistoric sherds, which are described in further detail below. The temper types for these prehistoric to early historic sherds are listed in Table 2 of Appendix B.

The domestic structure in Area 1 yielded one buff-colored utility sherd, a body fragment from a plain white ware vessel, a polychrome (black, red, white) body sherd, and another polychrome sherd that may belong to a San Clemente Glaze vessel. Four black-on-white sherds, three of which were from bowls, were also found. One these could be identified as belonging to the Santa Fe Black-on-white ceramic tradition (AD 1250-1350).

A gray utility sherd from a handled vessel, as suggested by the rim sherd containing a portion of a lug, was recovered from the domicile in Area 2. Other early sherds included three Rio Grande white ware fragments, two of which were from bowls; two black-on-buff glazed body sherds; and two black-on-white glaze ware bowl fragments. Of the three Rio Grande wares, one was identified as being Santa Fe Black-on-white while another may be Wiyo Black-on-white (AD 1300-1400).

Four black-on-red glaze ware body sherds and one polychrome neck fragment from a glaze ware jar were found in Area 3, or the plaza area. Six black-on-white ceramics consist of one Santa Fe bowl fragment and another bowl piece from an unspecified decorative type along with one Pueblo I Era sherd (AD 750-900), two Developmental Pueblo Period sherds (AD 750-1100), and one classic Santa Fe Black-on-white body sherd (Wendorf and Reed 1955; Wilson 2005). Additional ceramics include a black-on-buff gaming piece, or worked sherd, of the late Santa Fe variety and one polychrome sherd from a vessel that appears to date to the proto-historic or early historic period.

One prehistoric black-on-white sherd was recovered from the wagon trail surface in Area 4. Whereas the possible borrow pits in Area 7 produced a basket-impressed utility sherd dating to the Developmental Pueblo Period and two black-on-buff glaze ware body fragments. Area 9 yielded two ceramic fragments from Rio Grande white ware bowls. Additionally, a polychrome

glaze ware sherd was recovered from Core #3 during our site sampling and two black-on-white prehistoric sherds were gathered while performing surface collections.

The largest quantity of non-contemporaneous sherds was recovered from the house structure in Area 8. Although it is possible that the villagers living in the Area 8 house collected some of the non-contemporaneous sherds, site preservation is better in this section of the site as it is less prone to sheetwash. Prehistoric utility wares were represented by four sherds: two indented corrugated body sherds and one bowl fragment from an obliterated indented corrugated vessel in which the coiled exterior had been systematically pressed out to make the finish bumpy. The indented corrugated surface treatment has a time span of AD 900 to 1350, while the obliterated finish is shorter lived dating from AD 1250 to maybe the end of the 14th century (Breternitz 1966). One potential glaze ware sherd is represented by a black-on-buff fragment on which the slip turned into a glaze during the firing process. One bowl fragment was identified among the eight Rio Grande white ware sherds found in Area 8. Of these sherds, one appears to be more buff than white and two others were tentatively classified as being of the Santa Fe Black-on-white and Kwahe'e Black-on-white (AD 1050-1250) varieties. Two sherds from the St. John's ceramic tradition (AD 1150-1300) include a black-on-red bowl rim with a mend hole and a polychrome body sherd.

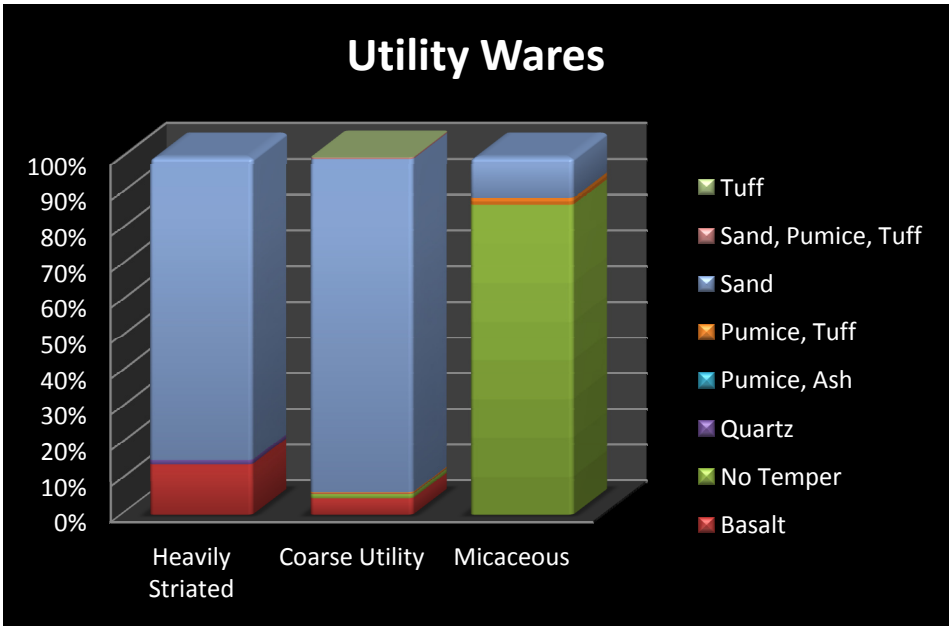
The 53 non-contemporaneous sherds collected from research activities at Las Huertas comprise only 0.8% of the indigenous ceramic assemblage. These sherds, which date largely to the prehistoric period, appear to be unrelated to the historic occupation of the village. The site may have been previously used as agricultural fields that were associated with the small prehistoric pueblo and pit-house site located on the south side of Las Huertas Creek. These older sherds may also be a by-product of the movement of people through Las Huertas Canyon, which

has been occurring for hundreds of years (Scurlock 1983). Furthermore, evidence for an occupation dating prior to the settlement of Las Huertas has yet to be found archaeologically.

Undecorated Wares

Utility wares comprised the largest class of ceramics at 3107 specimens, or 46.1% of the assemblage produced in New Mexico (for ceramic counts see tables in Appendix B). The overwhelming majority of these (93%) were coarsely finished vessels that are essentially equivalent to Carnué Plain. Heavily-striated forms and micaceous wares were rare, making up 3% (94 specimens) and 1.9% (58 specimens) of the utility wares. Within the small collection of micaceous wares, 90% were made from non-micaceous clays that were then covered with a mica slip. Only one sherd suggested a vessel constructed from residual clays containing mica or a paste to which micaceous rock was added. These mica-slipped wares are indicative of either an Indo-Hispano or Tewa-area manufacture (Carrillo 1997; Frank and Harlow 1990:18-19).

Figure 4-6: Utility Wares by Temper Type (in percents)



As can be seen from Figure 4-6, sand temper dominates (70-77%) the heavily striated and coarse utility wares with basalt being the second most common temper type. Both of these are suggestive of local manufacture. For centuries, Santa Ana and Zia Pueblos were unique in their use of crushed black basalt. After 1760, Santa Ana shifted to the use of river-worn sand; a technique also used by San Felipe, Sandía, and Isleta Pueblos (Frank and Harlow 1990; Harlow et al. 2005). The finite quantity of micaceous pot fragments, the lack of added temper, and the minute amounts naturally occurring pumice and/or mica in several of the paste types further suggest that most of the micaceous vessels at Las Huertas originated from the northern Rio Grande.

Figure 4-7: Utility Ware Bowl (Area 1)

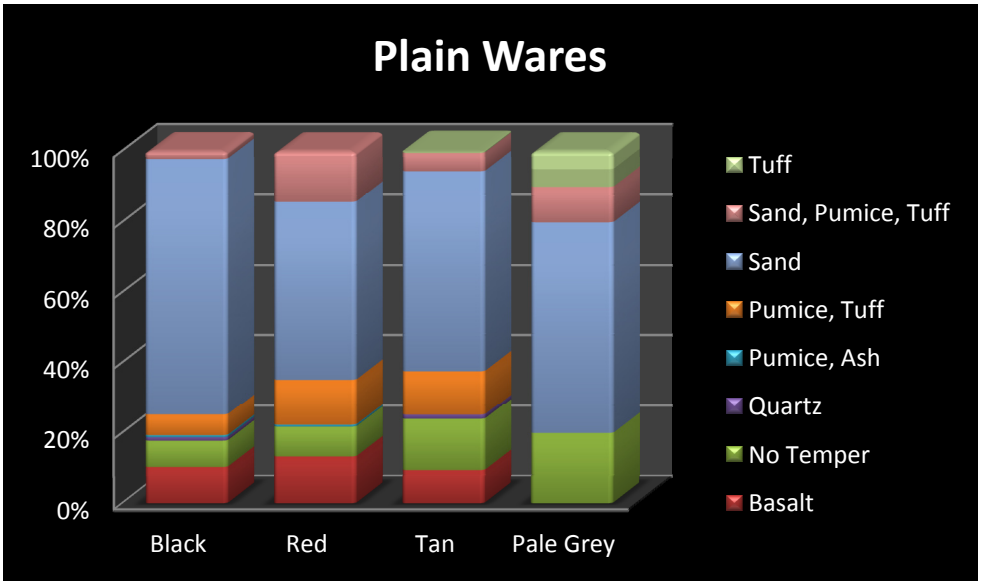
Among the heavily striated and coarse utility wares, jars were the most prevalent vessel form at 82% of the identifiable sherds. Based on the widths of the jar openings, vessels of different sizes appear to be present in the assemblage. Bowls were the only other recognizable form and varied somewhat in size, from their smallest at 10cm to their largest at 23cm in diameter. No vessel forms could be positively determined from the limited collection of micaceous sherds.

For the purposes of this analysis, I distinguished between coarsely-surfaced utility wares that were finished by wiping, as opposed to the more finely finished culinary plain wares that occur in the assemblage. Loosely corresponding to the Plain Red and Black types described above, the plain wares defined here are characterized by some attempt to smooth the surface of the vessel by making the inclusions in the paste less visible. Surface finishes range from

occasional wiping marks to being well-smoothed in which finishing marks are hardly visible and inclusions from the paste have been completely covered. With respect to the color of the vessels "black" includes all grey and black colored sherds, "red" is comprised of sherds pinkish in color as well as those ranging from orange-red to dark red, and "tan" includes those pieces that varied from light buff to brown in color. Pale grey wares appeared whitish and lacked sufficient pigment as to be characterized as any sherd color.

Of the 1281 sherds categorized as plain wares, only 9 (0.7%) specimens had a slip applied to their exterior surfaces. Largely unslipped as a group, it is probable that some plain ware sherds may have originated from pots that had additional decoration. The only possible exceptions to this are the gray and black wares. Again, the fragmentary nature of the ceramic assemblage may be the cause of some sorting errors. That being said, the distribution of plain black, red, and tan wares is relatively even—33.4%, 37.8%, and 27.5% respectively. The small number of pale grey sherds (17 specimens) may in fact reflect a classification error; but as there is no way to be certain of this, these sherds were grouped together.

Figure 4-8: Plain Wares by Temper Type (in percents)



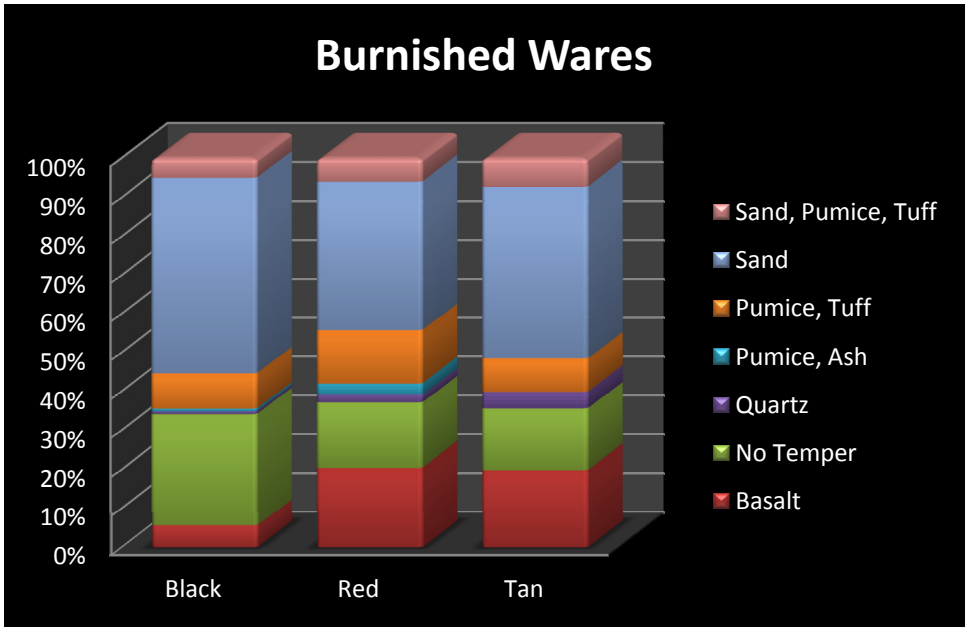
As with the utility wares, sand temper also occurs with the greatest frequency among the plain wares. Nevertheless, there appears to be more variability in temper types within this grouping. Over 70% of the black plain wares were tempered with sand. Basalt was then next most common temper type at 10.6%, followed by a lack of added temper at 7.5% and pumice/tuff at 5.9%. Approximately half of the plain red wares were tempered with sand while sand/pumice/tuff, basalt, and pumice/tuff occurred in nearly equal measure (14.3 to 12.9%). Sand-tempered sherds comprised 56.9% of the plain tan wares with untempered sherds making up 14.5% of the ware. Pumice/tuff (12.1%) and basalt (9.7%) temper types round out the four largest classes. The pale grey wares generally conform to the trends of the other plain wares, but more specific inferences are difficult given the small sample size (N=10).

At Las Huertas, plain ware bowls outnumber jars nearly two to one. And although jar forms were evenly distributed between the black, red, and tan plain wares; this was not the case with the bowls. Plain black ware bowls had a frequency of 48% followed by plain red ware bowls at 32% and plain tan ware bowls at 20%. Although it has been suggested elsewhere, for this site it does not appear that there is any correlation between the color of the plain ware vessel and its constructed form.

Burnished wares include all sherds in which the exterior surface of the vessel has been polished. The degree of burnishing varies from a low, almost matte, shine to a high glossy appearance. This ceramic category was devised in order to include such types as Tewa Red, Kapo Black, and the imitations of these highly burnished wares. The number of specimens classified as burnished wares was 429. Of these, 83 (19%) were recognized as having an exterior surface that had been covered with a slip.

At 47.3% and 32.6%, black pots and red pots comprised the majority of burnished wares. A smaller number of vessels were tan (20.1%) in color. Sherds tempered with sand still dominate this category but not to the same degree that they do within the utility and plain wares. This may in part be due to the fact that larger quantities of the more carefully finished burnished wares were procured from potters residing farther from Las Huertas.

Figure 4-9: Burnished Wares by Temper Type (in percents)



As the graph above illustrates, the distributions of temper types for the burnished red and tan wares are similar. Although less than half the total, sand-tempered ceramics comprised the largest grouping (38.2% and 45.6%); followed by basalt-tempered (20.6%), non-tempered (16.7% and 14.7%), and pumice/tuff-tempered pots (13.7% and 7.4%) in descending order. The data vary a bit from this pattern for the burnished black wares. Half of the burnish black sherds were tempered with sand. Pots made from pastes to which no additional temper was added comprised the next largest grouping (28.7%), after which were pastes tempered with pumice/tuff (9.1%) and then pastes containing basalt (5.6%).

Unlike the plain wares, there does seem to be a connection between vessel form and ceramic type at Las Huertas. Of the sherds from which vessel shape could be determined, bowls were the primary form at 61.1%. Jars were less common at 30.6% and soup plates only comprised 8.3% of the identifiable specimens. Burnished black jars occurred in slightly greater numbers (two vessels more) than burnished red and burnished tan jars which were equivalent. Within the bowl and soup plate grouping, black bowls comprised 64% of the total while tan bowls represented 24% and red bowls 12%.

Decorated Wares

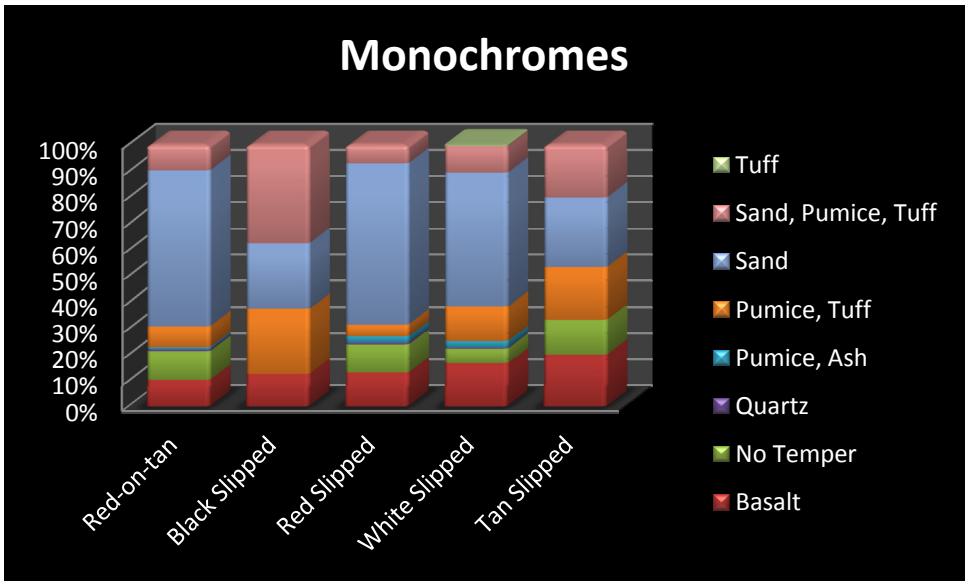
In this study, decorated wares were defined by those sherds to which color was applied to the clay body to intentionally conceal the color of the paste once fired, and not merely to create a smooth surface for burnishing or to cover up inclusions in the paste. Obviously the constructed categories of monochrome, slipped plain, and slipped burnished are not absolute and there was some gradation between these groupings during the sorting process. Nevertheless, 'decorated wares' as a whole consist of fragments of painted pots that could not be identified with greater precision. Some of these definitely originated from polychrome pots while others may be fragments from bichromatic wares such as Casitas Red-on-brown or San Ildefonso Black-on-red.

When recording the raw data on each sherd, individual specimens to which paint had been applied were sorted into the classes of monochrome, bichrome, or polychrome. However, for the purposes of evaluating the data, the monochrome specimens are presented in one grouping while bichrome and polychrome sherds were grouped together. The only exception concerns the specimens that were considered to be colored red-on-tan. Many of these had unslipped tan bodies with red over-painting while others appeared to have a tan-slipped body to

which red slip was also applied. Despite the different decorating techniques, these were considered equivalent as the end result was visually the same.

In addition to the red-on-tan grouping, other monochrome pot fragments included those painted with black, red, white, or buff slip. As white is a base color for many decorated wares, it was no surprise that white-slipped sherds comprised the bulk (42.8%) of the 691 sherds classified as monochromes. Red-on-tan and red-slipped sherds each made up roughly a quarter of this category. The black-slipped and tan-slipped groups are not discussed in any detail as their paste/temper values are skewed due to the small sample sizes (N=12 and N=21 respectively). The small number of sherds displaying only black slip is likely attributable to the fact that this slip color largely occurs in combination with other colors (like red or white). Presumably the low number of tan-slipped sherds results from the infrequency with which tan slips were employed.

Figure 4-10: Monochromes by Temper Type (in percents)

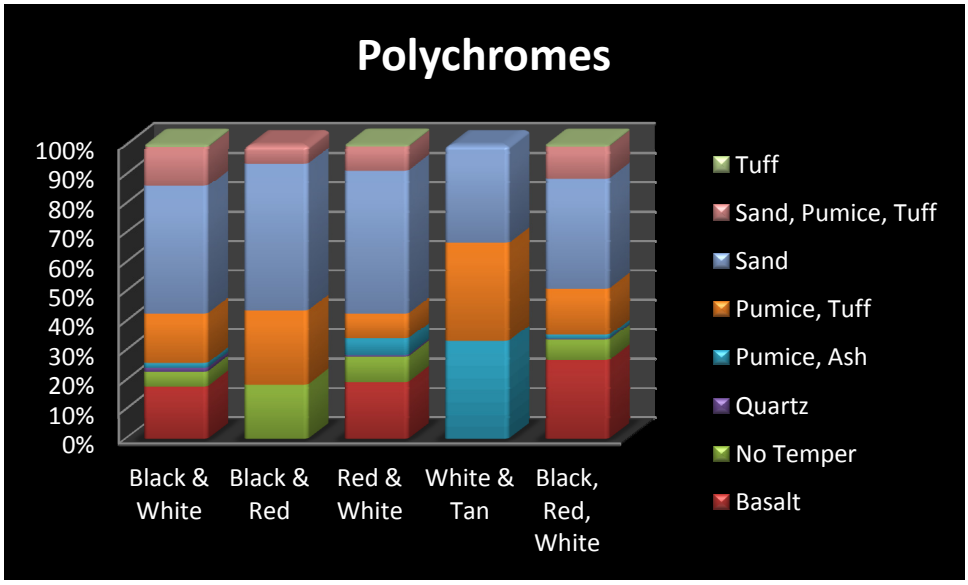


As shown by the preceding graph, the distribution of temper types for the red-on-tan wares and red-slipped wares are very similar. Approximately 60% of the specimens in these two groupings were tempered with sand. For the red-on-tan ceramics untempered pastes, basalt-tempered pastes, and pastes containing sand, pumice and tuff were the next most common temper groupings; the quantity of each were separated by less than one percent. Pastes with simply pumice and tuff comprised the remaining category of any size at 8.1%. Basalt-tempered and untempered sherds were less than two percent different among the red-slipped ceramics. While sherds tempered with sand/pumice/tuff (7%) and pumice/tuff (5.5%) were less common. The pattern varies slightly for the white-slipped ceramics in which 51.2% of the sherds were tempered with sand. Basalt is the next most common temper type followed by pumice/tuff and sand/pumice/tuff. Sherds without added temper comprised 5.7% of the whole for this subtype.

At 73.9%, bowls were the dominate vessel form among the monochromes. Only 4.4% of the sherds identifiable as to form had the appearance of soup plates. Jars (13%) were largely painted red with one specimen having the coloring of a red-on-tan ware. In the instances where diameter could be determined, most bowl sizes were relatively small and averaged 11cm in diameter. One exception was a large red-on-tan bowl. Given their small size, a few vessels had to be indicative of cups (6.5%). These were mainly red-on-tan wares with one red-slipped specimen. The small sample size explains why few tan-slipped and black-slipped bowls were recovered. However, it does not account for the small number of bowls painted with white slip. The lack of recognizable white-slipped sherds as to form may have to do with the placement of white paint on vessels from which the fragments originate. In other words, swaths of unadorned white slip largely occur on portions of vessels that cannot be readily identified.

Subsumed under the polychrome classification were 1086 painted sherds. True polychromes (painted red, white, and black) comprised 39.2% of this grouping followed by black and white slipped sherds at 35.7% and red and white slipped sherds at 22.8%. Specimens painted with only red and black were uncommon (N=22), as it is likely that these two colors frequently occur with white; unless the ware is of the black-on-red variety, which appears to be scare at the site. Three sherds had tan and white slips and could not be identified to a specific type. It is possible that these sherds came from polychrome vessels or are perhaps related to the Casitas White-slipped or White-banded ceramics discussed by Carrillo (1997). Regardless of origin, white and tan slipped sherds are rare.

Figure 4-11: Polychromes by Temper Type (in percents)



As with the other ceramics in the assemblage, sand-tempered sherds are the most numerous across all painted wares. But unlike the majority of the other groupings, sand-tempered ceramics account for less than 50% of the recognized temper types. Roughly 38% of the polychrome sherds had pastes tempered with sand, while 26.8% of these fragments were

tempered with basalt. Pumice/tuff and sand/pumice/tuff made up the next most abundant temper types at 15.7% and 10.6%. For the black and white slipped sherds, 43.4% were tempered with sand. Basalt, pumice/tuff, and sand/pumice/tuff were also fairly well represented at 18.1%, 16.8%, and 13.3%, respectively. The highest proportion of sand-tempered ceramics occurred among the red and white slipped pot sherds (48.7%). Specimens tempered with basalt comprised 19.6% of this group; but untempered sherds, those tempered with pumice/tuff, and sand/pumice/tuff were essentially equivalent at 8% each.

Given that bichrome-painted sherds likely came from polychrome pots, save a few exceptions, bichrome and polychrome sherds were taken together when considering the different vessel forms present in the assemblage. Bowls appeared to be the most common form and comprised 63.3% of the specimens that could be identified as to vessel shape. Bowl sizes ranged from 10cm to 23cm in diameter, the majority being on the larger end of this range. A small number (3%) of vessels were the size of cups or small bowls. Flange plates also were present in small quantities (3.6%). Polychrome jars made up approximately a third of the vessels recorded.

Again, the small size of a large number of the sherds recovered during archaeological investigations made the identification of painted wares challenging. This was in part due to the sharing of design elements among some puebloan groups. For example, Kiua Polychrome was originally created by northeast Keres potters as a copy of the Tewa pueblos' Powhoge Polychrome (Frank and Harlow 1990:74-76). Likewise, during the 18th century, potters at Acoma and Laguna Pueblos made a few unusual ceramics (designated Tecolote Redware and Polychrome) that resembled pottery from the Puname pueblos. The influence of Puname ceramics is also seen on a number of early Acomita Polychrome pots. Some of these vessels

have unbordered design elements (such as crescents and circles) that are strongly associated with Santa Ana Pueblo (Dillingham 1992:133, 137).

As such, some polychrome types were recognizable while others were more tentatively identified. Less than 8% of polychrome sherds had sufficiently painted surfaces from which the decorative style could be discerned. Pueblo wares included Ranchitos Polychrome (1760-1820), Santa Ana Polychrome (1820-1935), Puname Polychrome (1700-1760), San Pablo Polychrome (1760-1820), Trios Polychrome (1820-1860), Kiua Polychrome (1760-1830+), Kiua Black-on-red (1850-present), San Ildefonso Black-on-red (1880-1930), Acomita Polychrome (1770-1870), Ogapoge Polychrome (1720-1800), and Powhoge Polychrome (1765-1900) (Dillingham 1992; Harlow 1973; Harlow, et al. 2005; Warren 1979).

With the exception of the black-on-red ceramics, the decorated wares are contemporaneous with the occupation of Las Huertas. Puname Polychrome is perhaps a little early, but the presence of a handful of these sherds could be the result of a small number of settlers living at Las Huertas some years prior to their petitioning of the governor for the land grant. Additionally, there is some variability for the production dates for Ogapoge Polychrome. Harlow (1973) provides a date range of 1720 to 1760 for this type, while Warren (1979) extends the ending date to about 1800. The remaining polychromes coincide with the habitation of the village as they were rather abundant during the mid-18th through the early 19th-centuries.

Black-on-red painted wares appear to have a varied time span. Warren (1979:237) observes that Tewa Black-on-red was made in historic forms but with varied temper types that he suggests may have begun around 1680. However, Harlow (1973) states that such black-on-red wares as Powhoge Black-on-red, Kiua Black-on-red, and San Ildefonso Black-on-red were rarely made prior to the mid-19th century. Nevertheless, he describes a Powhoge Black-on-red jar

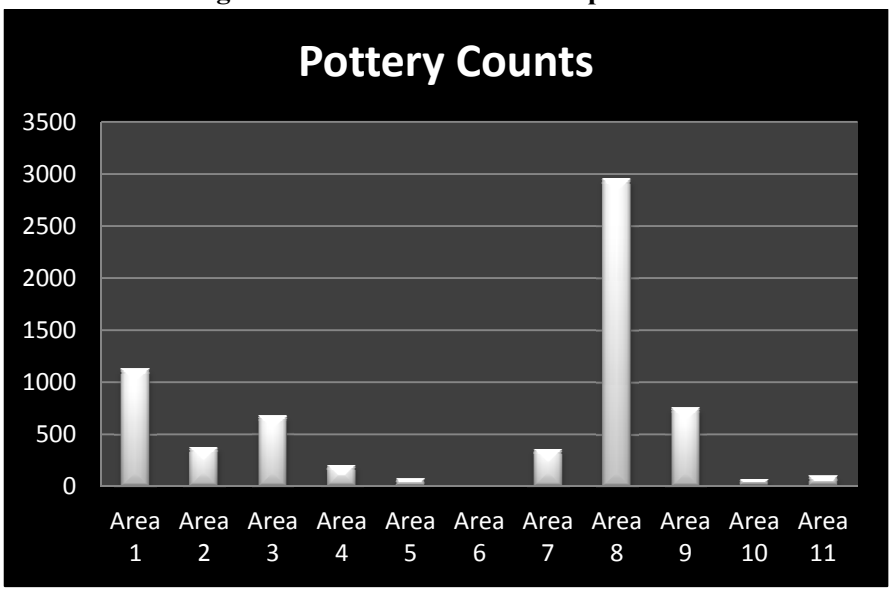
made by Tesuque Pueblo and decorated in a design typical of the early 19th century for which he offers a date range of 1830 to 1850. Thus, it is possible that the black-on-red wares found on site entered the village at the end of its occupation or were acquired by those families who resettled the site in the late 1830s to 1840s.

Figure 4-12: Tewa black-on-red bowl, Area 8 (probably from San Ildefonso Pueblo)

Intra-site Variability

A number of comparisons were made between various ceramic attributes and the locations where they occurred. Because these comparisons were made between two groupings of variables (area and vessel form, for example), the use of Pearson's chi-squared test was the most apposite statistic to assess whether or not the variables tested were interrelated. Several of the attributes examined were in fact associated (outcomes are presented in Table 9 of Appendix B). However, it is possible that the results of some of these tests may have been influenced by the inconsistency among sherd counts recovered from different areas of the site. The following figure illustrates this unevenness.

Figure 4-13: Number of Sherds per Area



Not surprisingly, a correlation was found between the degree of burning exhibited by the sherds and the areas in which they were discovered. Smelting and forging tasks were carried out in Areas 2 and 9. The high temperatures generated by such activities produced severely burnt and slagged pot sherds. Area 7 was the only other location that yielded a significant amount of burnt objects and debris. After its use as a borrow pit, it became a dump site for metal-processing remains and other trash. Other activity areas displayed smaller levels of burning. These typically took the form of partially charred sherds that were likely the product of cooking fires, or were the result of fire clouds generated at the time of the vessels' manufacture. Given that Areas 1, 2, and 8 contained household structures, cooking fires were undoubtedly used in these locations. The presence of hearths in both Areas 1 and 2 further substantiate this assertion.

Vessel form and area comprised one of the few comparisons in which there appeared to be no significant mathematical association. While this may be due to the small sample sizes or the relative lack of identifiable vessel forms found outside of household or activity areas, the lack of variability between the study areas in general, and households in particular, may also be

explained by the similarity of food preparation activities in which each household was engaged. In other words, the presence of comparable quantities of jars, bowls, soup plates, and so on suggests that the families living at Las Huertas were preparing, serving, and consuming foods in the same kinds of ways.

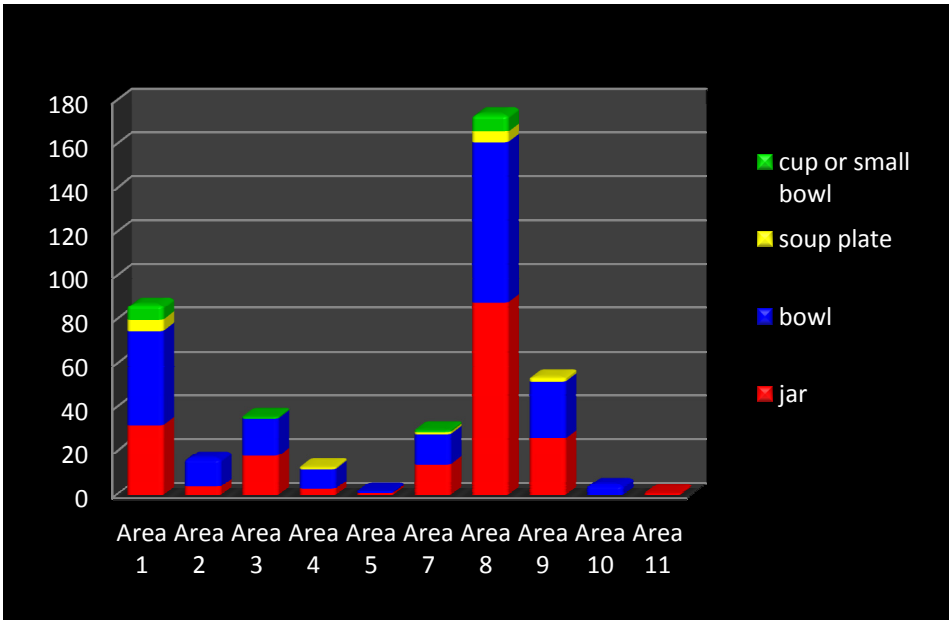
Table 4.1: Vessel Form Count by Area

Area	Jar	Bowl	Soup Plate	Cup or Small Bowl	Totals
Domestic Structure 1	32 (37%)	43 (49%)	5 (6%)	7 (8%)	87
Domestic Structure 2	4 (24%)	13 (76%)			17
Plaza Surface 3	18 (50%)	17 (47%)		1 (3%)	36
Cart Road 4	3 (23%)	9 (69%)	1 (8%)		13
Wall 5	1 (50%)	1 (50%)			2
Borrow/Trash Pit 7	14 (47%)	15 (47%)	1 (3%)	1 (3%)	30
Domestic Structure 8	88 (51%)	73 (42%)	5 (3%)	8 (5%)	174
Corral/Smelter 9	26 (48%)	26 (48%)	2 (4%)		54
Area 10		5 (100%)			5
Area 11	1 (100%)				1
subtotal	187	201	13	18	419
Ferg House	348 (75%)	114 (25%)			462
Totals	535	315	13	18	881

The above table lists the number of vessel forms found in each area excavated while the associated graph illustrates the same distribution. The data Alan Ferg (1984:44) recovered from the house he excavated is included at the bottom of the table for comparative purposes. Ferg was able to identify a greater number of sherds to vessel form than I, and the ceramic remains he unearthed from this domestic context contained a great deal more jar fragments than bowl fragments. The buried-storage-jars feature that was embedded in the kitchen floor of the house may in part account for the high quantity of jar fragments recovered from this household. In our investigations within the walled-village, we did not come across any storage features inside the houses we sampled. This lack of evidence, however, does not conclusively signify that the

family that occupied the Ferg house put a greater emphasis on storage than other households at Las Huertas.

Figure 4-14: Distribution of Vessel Form by Area



Vessel quantities recovered from the household in Area 2 are in complete opposition to the Ferg house. Here, bowls comprise the majority of vessel forms and jars make up roughly a quarter of the assemblage. Although the modest sample size for this house may be responsible for this disparity, it is also possible that the higher frequency of bowls may be a sign of slightly different use patterns in this household—perhaps reflecting more of a preference for individual serving bowls. Regardless, this discrepancy is not statistically significant from vessel usage occurring elsewhere within the village.

Areas 4, 5, 10 and 11 also have extremely small assemblages from which vessel form could be determined. Interestingly, Areas 3, 7, and 9 produced equivalent quantities of jars and bowls, which differ only slightly by the presence of the occasional soup plate or cup/small bowl. Presumably these locations were places of discard, both formal and informal. Abundant

quantities of jars and bowls were recovered from both households in Areas 1 and 8 with each having a few soup plates and cups. Area 8, however, yielded approximately 10% more jars than bowls with the inverse being true in Area 1 (having about 10% more bowls than jars).

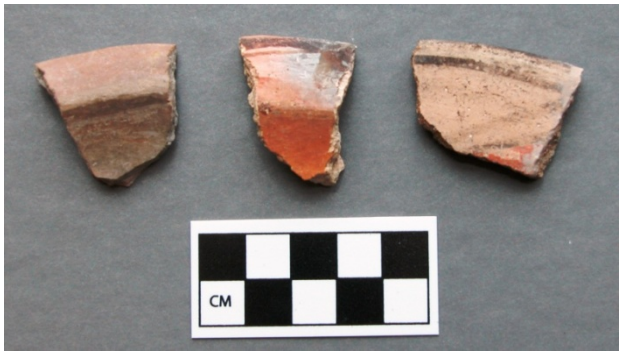


Figure 4-15: Soup plate rims (Areas 1 and 8)

Seven worked sherds were recovered from our excavations within the walled-village. Ostensibly in various stages of refinement, these sherds took the form of gaming pieces. Although they may have served as spindle whorl blanks as well. The disc-shaped sherds ranged from 2.7 to 4.0 cm in diameter and were found in every domestic structure we sampled. As previously stated, a prehistoric worked sherd was found in the vicinity of the plaza in Area 3. Area 8 produced three worked sherds painted with black and white painting on one surface, as did Area 1. Despite the presence of only two colors, these sherds undoubtedly came from polychrome vessels. Area 2 yielded the only true polychrome gaming piece. The one majolica gaming piece was discovered during surface collection activities.

Figure 4-16: Gaming Pieces

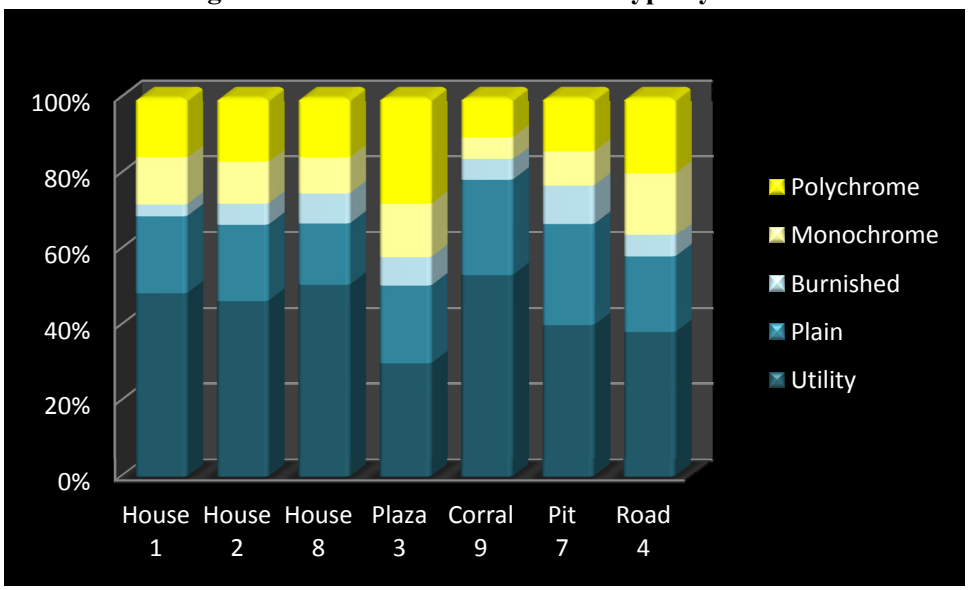
Top row: left sherd, Area 8; right sherd, Surface Collection

Bottom row: left sherd, Area 1; middle sherd, Area 2; right sherd, Area 8

Ware and temper type were additional variables that exhibited connections to distinct locations throughout the site. This is to be expected given that a mathematical correlation exists between ware and temper type. In the comparisons that follow, the wall features in Areas 5 and 6 and the test areas of 10 and 11 were excluded because they produced no evidence that they functioned as use areas for the village's occupants. Furthermore, these areas had sample sizes of less than 100 specimens.

When ware types were compared to one another based on the areas in which they were discovered, the three house areas displayed distributions more similar to one another than to the deposits found in any of the other locations (i.e. the road, plaza, corral and borrow/trash pit). Despite this, the positive correlation between ware types and households suggest that at least some difference in ceramic use did exist.

Figure 4-17: Distribution of Ware Type by Area



Among the three houses both monochromes and polychromes had very similar frequencies, occurring within one percent of one another. With respect to plain wares, Areas 1

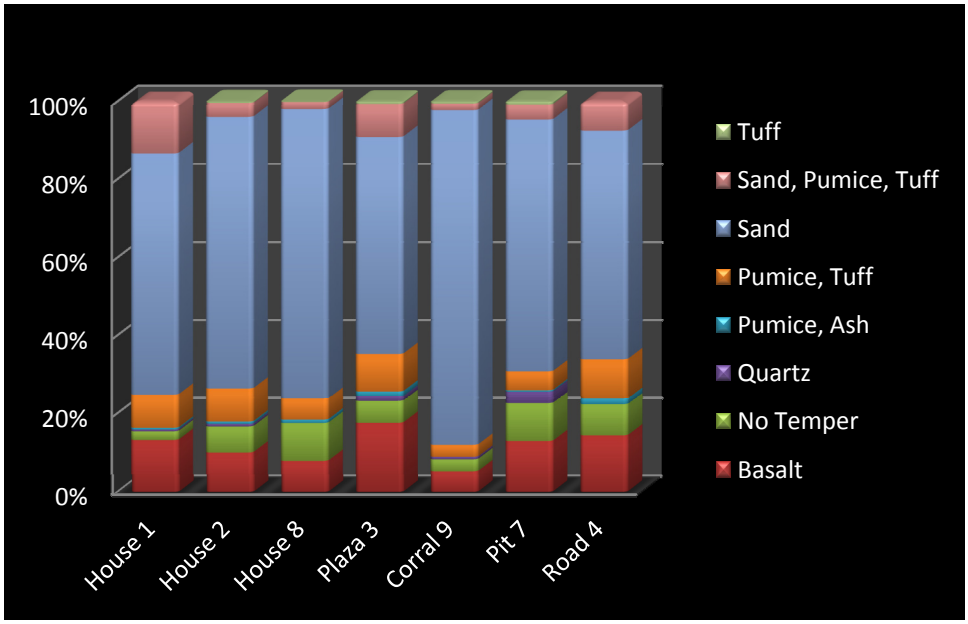
and 2 had the same frequency with Area 8 producing four percent less of this type. Although the occurrence of burnished and utility wares was greater between households than for other wares, their distributions were still relatively consistent—diverging from two to five percent. The plaza surface contained the highest quantity of polychromes, but the lowest number of utility wares. The road feature had the largest amount of monochromes while the trash pit contained the most burnished and plain wares. In contrast, the corral that was once the site of smelting activities yielded the largest number of utility wares but the smallest amounts of polychrome and monochromes for the site.

This patterning seems to suggest a relative homogeneity of wares and their presumed use among the households studied at Las Huertas. Conversely, the differing distributions of ware types across the other areas of the site likely indicate the use and disposal patterns of the village residents more generally. If this is indeed the case, then utility wares were connected to more laborious, and presumably male (herding, metal-working) tasks, while decorated wares made their way into trash deposits located throughout the site.

The distribution of temper types across the site does not appear to follow quite the same kind of patterning as that for ware type, despite the correlation that exists between these two variables. First of all, pot fragments tempered with pumice and ash as well as that of tuff alone comprised one percent or less of examined specimens in all areas. In Area 7, three percent of pot sherds were tempered with crushed quartz, but comprised one percent or less of temper types found in all other excavated areas. While household assemblages were more similar to one another than other test areas with respect to ware type, there seems to be more variability, or less consistency, among temper types between households and the other activity areas more

generally. The graph below shows the distributions of temper types in relation to the locations in which they were found.

Figure 4-18: Distribution of Temper Type by Area



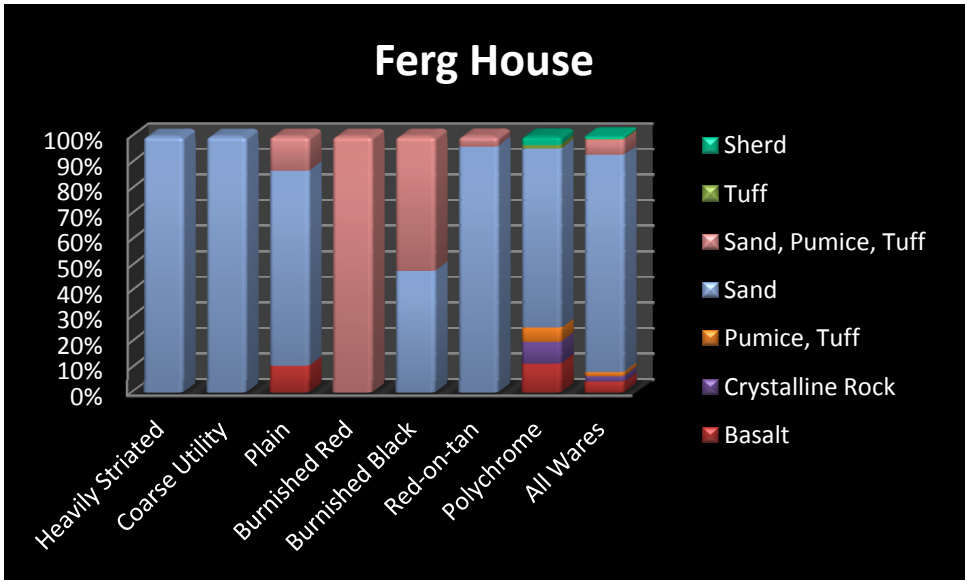
Basalt-tempered sherds were most commonly found in the plaza area but had a minor presence in the corral, which is consistent with the patterning of the polychrome wares. Among the households, Area 1 generated the highest amount of basalt-tempered sherds with the difference between the households ranging from two to five percent for this temper type. Ceramics to which no temper was added to the base clay occurred with the greatest frequency in Areas 7 and 8, Area 1 being the lowest. Dissimilarities amongst households for this temper type were a bit more varied, fluctuating from three to eight percent.

As with the basalt temper type, Area 3 had the highest number of sherds tempered with both pumice and tuff. While the houses in Areas 1 and 2 produced equal quantities of pot fragments containing pumice and tuff temper, the household in 8 yielded four percent less of this temper type. Pastes of sand, pumice, and tuff were most prevalent in Area 1 and the least

common in Areas 8 and 9. Variations among households in this temper type were even greater, and ranged from one to eleven percent. Pastes utilizing sand temper were by far the most widespread, occurring with the greatest incidence in Area 9 and with the lowest in Area 3. Again, this distribution of temper types parallels that of utility wares and is a result of the association that exists between ware and temper types. As for inter-household variability, it ranged from four to twelve percent, which was similar to that for pastes containing sand, pumice, and tuff.

Although far from a perfect comparison, given the different methods employed in the ceramic analyses, my results can be evaluated with those of Alan Ferg's for the house that he excavated. Alan Ferg used a more traditional analytical framework to categorize the ceramics he collected. He grouped these sherds into known types based on a number of attributes that were not specifically identified, but we can assume included a combination of decorative style, paint color, finish, and paste characteristics (see Appendix B, Table 10). Based on the ceramic types recognized by Ferg and the assumed attributes associated with each named type, his sherd counts were roughly converted the ceramic scheme I utilized in my analyses; the results of which are depicted on the next page.

Figure 4-19: Temper Distribution by Ware Type (extrapolated from Ferg data)



As with our sample areas, sand was the primary tempering material for the utility wares examined by Ferg. Yet, there appears to be a complete lack of micaceous pottery in the Ferg house assemblage despite its presence in three of the areas we examined at Las Huertas. Tewa Red was the only burnished red ware recovered and, as such, was probably tempered with a combination of sand, pumice, and tuff. Kapo Grey and Kapo Black were also identified along with a more crudely burnished black ware that was sand tempered and of unknown origin, though presumably of local manufacture given the temper type. Red-on-tan wares consisted mainly of Casitas Red-on-brown as well as small amounts of Tewa Red-on-buff. Polychromes came from much of the Pueblo world, although the majority of painted wares were Puname in origin. Ranchitos Polychrome was the most prevalent, though San Pablo or Trios Polychromes were also present. The northeast Keres Pueblos were represented by Kiua Polychrome, while Tewa and Powhoge Polychromes came from the Tewa area. A small number of Acomita Polychrome fragments further indicated that a few sherd-tempered pots from the Acoma-Laguna region made it into the hands of some Las Huertasanas.

Summary

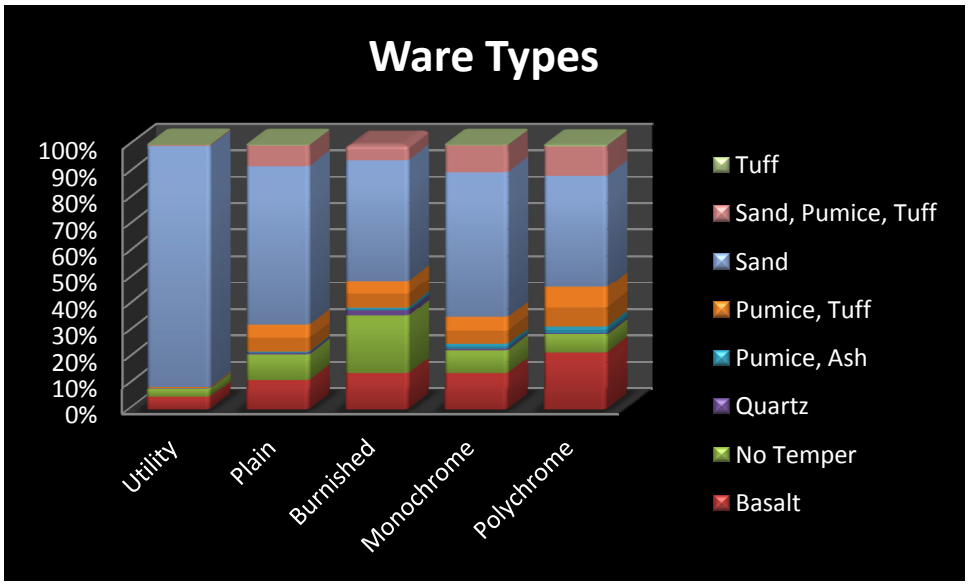
Despite the fragmentary nature of the ceramic assemblage at San José de las Huertas, some inferences could be garnered from the data. Utility wares were the most common ceramic (47%) overall, and dominated each sample area as well. Predominately sand-tempered, utility wares ranged in color from black or grey to tan or red. Basalt was the second most abundant temper type, but comprised just five percent of utility wares. The prevalence of these tempering materials suggests local manufacture for the majority of this ceramic type. Approximately two percent of utility wares were micaceous and the construction of these pots, including the lack of added temper, was consistent with techniques employed by potters residing in the Tewa area. However, the small number of specimens made it difficult to determine whether or not potters resided in pueblo or Indo-Hispano communities.

Plain wares comprised 19% of the ceramic assemblage. And though a few fragments subsumed under this category may have come from the underbodies or plain portions of decorated pots, the majority of specimens represent the plain ware vessels that have been found at numerous archaeological sites throughout New Mexico. Again, sand and crushed-basalt temper types are abundant suggesting local manufacture and procurement. Interestingly, sand was the dominant (over 70%) tempering material for black and grey plain wares, but was used in approximately half of red or tan wares. Basalt, sand/pumice/tuff, and a lack of added temper characterized the remaining half of these wares.

Six percent of the compiled ceramics were burnished wares, most of which were unslipped and of the black or red varieties. About half of this ware type was tempered with sand, while 21% of the burnished red wares contained basalt temper and 29% of the burnished black wares appeared to have no additional tempering materials added to the paste. The volcanic

tempering materials of pumice, tuff, and ash accounted for 17% of all burnished ceramics. Similarly, 15% of black burnished fragments contained these materials. The number for red burnished specimens was somewhat larger at 23%. Meanwhile, untempered burnished wares comprised 22% of the whole.

Figure 4-20: Temper Composition by Ware Type (Site Level)



Painted ceramics showed larger quantities of different temper types than the culinary plain wares, but perhaps not quite as much as the burnished ceramics. Monochromes, which made up 11% of the ceramic assemblage, primarily occurred as red-on-tan wares, red painted wares, and white painted wares. Red-on-tan wares were produced by a number of different pueblos (e.g. Isleta Red-on-tan and San Juan Red-on-tan) as well as Indo-Hispano potters (Casitas Red-on-brown). Red painted wares may include fragments from either red-on-tan vessels or polychromes, while white painted sherds likely came from polychrome vessels alone. Then again, Casitas White-slipped vessels could also present a small possibility as an origin for

these sherds. However, this is less likely as Las Huertas is located outside of the geographical range in which monochrome, white-slipped vessels have been found.

Approximately 60% of the red-on-tan and red painted sherds were tempered with sand. Nearly equivalent amounts of basalt, sand/pumice/tuff, and untempered ceramic fragments comprised the next most common temper groupings for the red-on-tan ceramics. This trend was reflected in the red painted wares as well, but the differences between temper types were a bit greater at two percent. Slightly over half of the white monochrome sherds contained sand as a tempering material, followed by basalt at 12%. Pastes containing various combinations of pumice, tuff, and ash accounted for 19% of the remaining white painted sherds. As for the polychrome vessels, their fragments accounted for 17% of the ceramic assemblage. Sand-tempered polychromes had the lowest frequency of all the analytical groupings at 42%. Basalt was the next most common at 22%. When pastes types containing the volcanic tempering materials of pumice, tuff, and/or ash were combined, they comprised 29% of the polychromes recovered from Las Huertas.

While basalt-tempered vessels were undoubtedly produced by Zia potters, there are a number of potential sources for pots tempered with sand. After 1760, Santa Ana Pueblo was known for their use of waterworn sand as a tempering agent in their pottery (Harlow, et. al 2005). And although San Felipe Pueblo stopped making traditional painted pottery after about 1700, they did produce rather coarse utility wares with polished black interiors as well as polished red vessels with a clay and temper that resembled that of Santa Ana (Frank and Harlow 1990:116-117). The oral historical record substantiates the notion that San Felipe was a source for pottery. In one narrative describing life in the old houses of Placitas, village elders explain that most of the pottery that outfitted one's household was carried to the area from San Felipe

Pueblo (Rebolledo and Márquez 2000:156). Isleta Pueblo also manufactured pottery with pastes that have been thought to be similar to both San Felipe and Santa Ana.

It is uncertain that Sandía Pueblo was a source for pottery, despite its relative proximity to San José de las Huertas. Abandoned in the late 17th century, Sandía was reoccupied in 1748 by refugees from several pueblos. Although Frank and Harlow (1990:117) state that no ceramic tradition is known for Sandía during the historic period, Adolph Bandelier observed that only one kind of pottery was being made at the pueblo in 1882. Regardless of its scarcity within the pueblo at the end of 19th century, Sandía potters did sell their black, thick-walled wares. A couple of rare examples of this ceramic reside at the Laboratory of Anthropology in New Mexico and are tempered with coarse sand. To further complicate the matter, Captain John G. Bourke noted that potters at Sandía made a "black and white" pottery as well. This observation appears to be corroborated by research that took place at Sandía in the 1980s, which suggested that a thick-walled type resembling Santa Ana Polychrome may have been produced there (Batkin 1987:195).

Local potters residing outside of pueblo communities may have also been responsible for the manufacture of some sand-tempered wares. As Carrillo (1997) and others have suggested, Carnue Plain, Casitas Red-on-brown, and some burnished black as well as micaceous wares were produced by a handful of Indo-Hispano potters living in a number of communities throughout the province. Due to increasing population pressure and low agricultural productivity in the late colonial period, Carrillo argues that some disenfranchised citizens residing in Hispanic villages engaged in ceramic craft production between 1790 and 1890 in order to supplement their household income. Pottery production was one alternative subsistence strategy for those who

lost their land (e.g. widows) or whose land holdings became too small to produce sufficient food stuffs.

Identifying the loci of production for pottery tempered with the volcanic materials of pumice, tuff, and ash may also be problematic. Frank and Harlow (1990:16) assert that the Tewa pueblos typically tempered their decorated wares with finely powered tuff and used the locally abundant crystalline rock for their utility wares. Nevertheless, variety in paste composition did exist among the different pueblos. For example, Nambe clays tended to contain naturally occurring coarse mica flakes and pots made from Tesuque pastes included sporadic crystalline rocks (Frank and Harlow 1990:38-39). These observations become more complicated when specific polychrome types are described given that all the Tewa pueblos produced decorated wares.

Tewa Polychrome (1650-1730), the precursor to the decorated wares that follow, was tempered mostly with tuff in a paste that included occasional granitic inclusions. Sand temper was rare (Harlow 1973:28). The temper for Ogapoge Polychrome consisted of vitric tuff in a paste with other less dense inclusions, and sometimes crystal pumice (Harlow 1973, Warren 1979). The ware most contemporaneous with the occupation of Las Huertas, Powhoge Polychrome, was usually tempered with vitric tuff in a paste containing small white or crystalline inclusions (Harlow 1973; Batkin 1987:41). A. H. Warren (1979:236) also notes that crystal pumice was used as a tempering agent for Powhoge Polychrome. He further maintains that the volcanic rocks of the Jemez Mountains provided a wide variety of suitable tempering materials. Both ash and pumice would have been available to potters residing in the Espanola-Chama Districts.

In his petrographic analyses of ceramics from LA 99029 (a Hispanic residence occupied during the mid-19th century in the Glorieta Valley), David Hill (2003:282-293) observed that the pastes of two Powhoge Polychrome samples contained slight amounts of quartz sand but were heavily tempered with fine glassy pumice. One unspecified Tewa polychrome sherd also had small amounts of naturally occurring sand, as well as mica, and was tempered with crushed glassy pumice. Another Tewa polychrome fragment, not identified as to type, had a paste in which mica was common and naturally-occurring, as were small amounts of fine-grained quartz and feldspar, and to which no temper had been added. In short, Hill determined that three of the four Tewa decorated ceramics were tempered with volcanic materials. He further suggests that the sherd lacking pumice temper may have been constructed outside the traditional production area of the Tewa Basin. Hill concludes that all examined specimens, including culinary plain, burnished, and painted wares, tempered with tuff and/or pumice were associated with Tewa Basin manufacture.

Several scholars have drawn attention to the strong connection between northeast Keres and Tewa pueblo ceramics (e.g. Batkin 1987; Frank and Harlow 1990; Frank 2000). Research at Tonque, near San Felipe, and from the Cochiti Reservoir area intimate to Batkin (1987:93) that the northeast Keres and Tewa pueblos constituted a single ceramic province, with the Tewa potters being more prolific. In A. H. Warren's examination of the 17th-century artifacts from Tonque, he showed that the locally-produced Keres pottery contained crystal pumice as a tempering material (Snow 1972:46-47). To a certain extent, this diverges with the descriptions of Santo Domingo and Cochiti pastes reported by other researchers. Frank and Harlow (1990:17) describe the pastes of Santo Domingo and Cochiti to be Tewa-like but with a considerable amount of crushed crystalline rock and a softer white material. Similarly, Franklin

(2007:65) notes that potters from these pueblos added angular translucent crystalline fragments to a paste that also included a soft white substance, which he believes to be pumice.

Part of this ambiguity likely stems from the history of pottery production for these two pueblos. After the Pueblo Revolt of 1680, Santo Domingo and Cochiti stopped producing glazewares. For a while they imported ceramics from Zia Pueblo and the Tewa pueblos until they began to manufacture Kiua Polychrome about 1760, which continued to be made until at least 1830. And although Kiua Polychrome was initially created to imitate Powhoge Polychrome, the ware did develop its own distinctive style (Frank and Harlow 1990:74-76).

Ceramics to which no temper was added pose an additional sourcing challenge. Pastes lacking temper may be difficult to source as they could originate from a number of locations depending on other paste qualities. In order to identify these specimens, the geologic composition of the pastes would have to be known. Typically, pastes used to produce polychromes do not lack tempering materials. The principal exception to this is Hopi pottery, which is made from clay of such a quality that it usually does not require the addition of temper. However, Hopi sherds do not appear in the Las Huertas assemblage. Micaceous ceramics are frequently untempered as they are constructed from residual micaceous clays. Apart from Manzano Micaceous, which occurs south of Albuquerque, micaceous wares emanate from northern New Mexico or the Upper Rio Grande. Moreover, they were likely produced in both Indian and Indo-Hispano settlements.

The identification of a few sherds of Acomita Polychrome at Las Huertas necessitates a brief discussion of Acoma and Laguna ceramics. Visually, polychromes from Acoma and Laguna made prior to the mid-19th century are frequently indistinguishable from one another (Batkin 1987:149; Dillingham 1992:32). Acoma and Laguna are known for using crushed sherd

temper in their ceramics, dating from the prehistoric well into the present. However, Laguna did employ the use of ground rock temper for a time as well. Possibly introduced by potters from Zia who fled to Laguna during the Pueblo Revolt, rock temper was used by Laguna potters in the manufacture of utility wares. However, for more delicate pieces they continued their use of sherd temper (Dillingham 1992:45-46).

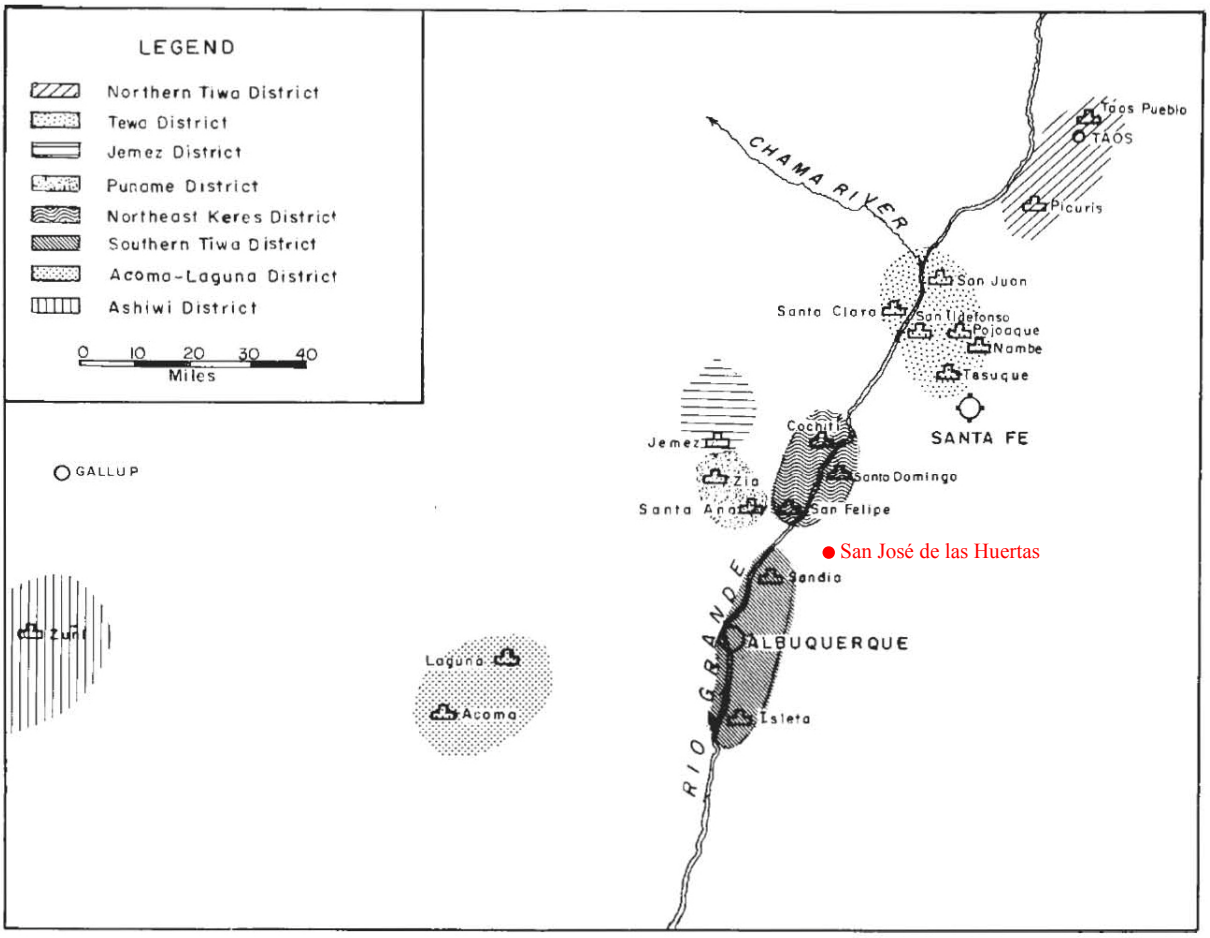


Figure 4-21: Map of the Pueblos in the Middle and Upper Rio Grande (taken from Harlow 1973:9)

Table 4.2 illustrates the probable origin of the ceramic assemblage based upon the tempering materials observed in the analyzed sherds. San Felipe (eight miles north), Santa Ana (six miles northwest-west), and Sandía (nine miles southwest) Pueblos are the nearest pueblo

communities to Las Huertas with Santo Domingo (13 miles north-northeast), Zia (20 miles northwest), and Cochiti (21 north-northeast) Pueblos being somewhat farther away. Despite the distances between these pueblos and San José de las Huertas, they did provide the most local sources for ceramics. Other local sources could have included Indo-Hispano villages or farmsteads in the area, though not many of these are known. Bernalillo (four miles west), Alameda (seven miles southwest), and later Algodones (five miles northwest), were the closest Spanish colonial settlements to Las Huertas. In contrast, the Tewa pueblos and Acoma and Laguna were the most distant pueblos for which there is some ceramic evidence.

Table 4.2: Potential Sources of Ceramics Based on Temper

Tempering Material	Origin		Utility Wares	Plain Wares	Burnished Wares	Monochromes	Polychromes	All Wares
Sand	Local	Santa Ana, San Felipe, or Other Indo-Hispano Villages	91%	60%	45%	55%	42%	70%
Basalt		Zia	5%	11%	14%	14%	22%	10%
Crushed Quartz		NE Keres	0.1%	0.6%	1.8%	0.6%	0.6%	0.5%
Ash, Pumice	Upper Rio Grande	NE Keres or Tewa	0	0.4%	1.2%	1.8%	2.4%	1%
Tuff, Pumice		Tewa	0.9%	18%	16%	20%	26%	11.5%
No Temper	Unknown		3%	10%	22%	8.6%	7%	7%

As can be seen from Table 4.2, over 96% of utility wares were procured locally. Untempered micaceous wares made up roughly two percent of this artifact class and exhibited characteristics consistent with techniques used by potters from the Tewa Basin. Nearly 70% of plain and monochrome wares were also produced locally. A larger percentage of burnished and

polychrome wares appear to have been imported from farther away. Not surprisingly, a fair amount of these originated from the Tewa Basin. Yet, a significant number of burnished wares could not be identified as to source. Untempered vessels may have been produced in multiple places, some coming from locations outside of areas traditionally associated with the manufacture of burnished ceramics. Some quantity of pot sherds to which no temper was added to the base clay are found in assemblages throughout New Mexico (e.g. Akins 2001, Hill 2003, Moore et al. 2004, Sunseri 2009). For these ceramics, vessel finish and/or decoration and the geologic composition of the clay provide the only clues as to where a pot was produced and from what potting tradition it derived.

Figure 4-22: Ranchitos Polychrome bowl fragment and sherd (Area 9 and Surface Collection)

The prevalence of Ranchitos Polychrome and, to a lesser degree, Santa Ana Polychrome at Las Huertas is indicative of the large number of polychromes that were coming from Santa Ana Pueblo. Slightly more Tewa polychromes, in the form of Ogapoge and Powhoge Polychromes, populated the assemblage than did Zia wares. Zia-made polychromes included San Pablo and Trios Polychromes. A few sherds decorated in the style of Kiua Polychrome were observed and may have been tempered with crushed rock or pumice. As such, pottery from Santo Domingo and Cochiti Pueblos are conceivably represented by sherds tempered with what I labeled crushed quartz or pumice, but not tuff.

I also examined the distribution of vessel forms across ware types (see graph in Appendix B). The comparison illustrates that the villagers of Las Huertas preferred decorated bowls over

other kinds of bowls. Matte-painted bowls accounted for 69% of the total bowl count. More specifically, polychromes made up over half of the total number of bowls. This is in contrast to jars, where painted wares comprised 31% of this vessel form's total. In fact, most of the jars represented at the site are utility wares, suggesting that Las Huertasanas selected to use utilitarian jars when carrying out activities such as storage, water carrying, and cooking.

Conversely, decorated bowls were chosen over those that lacked decoration. Although extremely small in number, soup plates and cups (or small bowls) follow a similar pattern. Soup plates only occurred as either burnished or painted wares, with polychromes accounting for 79% of this vessel form. The distribution of cups, or small bowls, was not quite as stilted since this form was present in culinary plain (35%) as well as a single burnished specimen. Perhaps the choices made as to form and decoration were ones related to use, as one primary function of bowls and soup plates would have been in the serving and consumption of food.

Indeed, this is reflected in the oral histories that were collected from the descendants of San José de las Huertas in the 1930s during the Works Progress Administration. Several accounts by descendants relate how and what kinds of foods were consumed. 'In the old houses,' a phrase used to talk about homes dating to the time period when Las Huertas was occupied, members of a household would sit on the floor with food bowls and jars in the center of the room. The meals were oftentimes contained within jars, but bowls seemed to have been preferred in the act of eating (Rebolledo and Márquez 2000). Cups or small ceramic bowls were used in the drinking of *atole*. This drink (made from goat's milk and the meal of roasted and ground blue or pueblo corn) was typically consumed for breakfast, by young children, and by the infirmed (Rebolledo and Márquez 2000: 130, 521, 371).

All the indigenous-made ceramics used at Las Huertas were likely obtained through exchange. And while I believe that some members of Indo-Hispano communities were making pottery, I do not think clay pots were being manufactured by the villagers of Las Huertas. Ceramics would have been locally available and easy to procure given the village's proximity to pottery-producing pueblos. Additionally, no archaeological evidence (such as wasters) indicating ceramic manufacture has been found at the site to date. Moreover, oral narratives from the descendant community do not even hint at the making of pottery. This omission stands in opposition to oral accounts from other parts of New Mexico that do describe the making of pottery in Hispanic villages, along with descriptions illustrating the nature of the trade in this commodity. One case in point comes from Cordova, a fortified plaza community east of Española that was founded during the 18th century. Here, women who lacked sufficient resources supplemented their income by trading the pots they made for foodstuffs like cornmeal, flour, and beans—the pot being worth the contents it could hold (Brown, et al. 1978:59). Though the absence of pottery-making in the oral historical record from Placitas does not definitively rule it out, it does seems to suggest that if it did occur, it was inconsequential enough to be related to heirs and remembered by them.

What are contained within the narratives are the reminiscences of descendants portraying women's activities and duties in great detail. Thus, it is a bit surprising that pottery manufacture is not mentioned given its production during the colonial era was primarily the domain of women. The oral histories make it evident that women were responsible for child rearing, cooking, preparing and conserving food, planting and tending to the agricultural products consumed by the household, transporting water and goat's milk, spinning and weaving wool into

cloth and blankets, making clothing for their family, and maintaining the home through the re-plastering of fireplaces, walls, and floors (Rebolledo and Márquez 2000).

Among the numerous village crafts recounted by informants, the one that most closely resembles ceramic production is the making of the *tinaja de lemita*. This was a large jar used to store water for household consumption at Las Huertas, but whose use was discarded once the village was abandoned. It was made from the tough but pliable branches of a shrub called *lemita*, which is similar to willow but with barbed stems. These woven jars were 30 to 40 inches high, coated with hot pine resin to make them waterproof, and capped with a wooden plug (Rebolledo and Márquez 2000:355-357).

A principal argument for the necessity of Indo-Hispano pottery production is that would-be potters did not have access to sufficient arable land. The San Antonio de las Huertas Land Grant provided ample resources for the villagers of Las Huertas. And despite population growth, the land base would not have degraded to the extent that it was necessary for any Las Huertasana to engage in pottery production. Moreover, familial ties within the community, as well as the corporate labor structure that existed within the village, would have provided some relief for those households with food shortages. Besides, the oral histories show that crafts other than pottery-making were chosen to supplement the income of struggling households, or by those who simply wished to increase their earnings. The trading of goat's milk and cheese for foodstuffs or other goods appeared to be the most common extra-household activity. In times of need, some women also chose to cut the long wild grasses that grew near the village during the harvest seasons to trade in Bernalillo (Rebolledo and Márquez 2000:137, 162, 173).

To reiterate, the analysis of sherds from San José de las Huertas reveals that a considerable portion of the pottery (80.5%) utilized by its inhabitants was procured locally. And

while every household assemblage within the village was dominated by locally-made ceramics, subtle differences in the distribution of paste/temper types are statistically significant (see Appendix B, Table B9). The greater frequency of certain pueblo-made wares in one household over another is most likely a reflection of the differing trade and/or social ties that existed between Las Huertasana households and various pueblo families.

Ceramic tempering materials as well as identifiable polychrome wares further suggest that the villagers of Las Huertas had the strongest trading ties with Santa Ana and San Felipe Pueblos. Zia and Tewa-made ceramics were nearly equivalent in their contributions to the village's stores of pottery. While Zia is not too distant from Las Huertas, it is a little more difficult to explain how a significant amount of Tewa pottery reached the village. One possibility is that these wares were brought back from trading expeditions into Santa Fe. The oral historical record informs us that periodic forays were made to the north in order to take goods, primarily in the form of cheese and wool by-products, produced by the community to markets in Santa Fe (Rebolledo and Márquez 2000). In the case of Santa Ana, San Felipe, and Zia Pueblos, the villagers likely traded such foods as meat, corn, wheat, beans, goat cheese, and milk for the desired pots (Moore 2003).

In part, these trading networks reinforce the strong religious ties the villagers had to San Felipe. Sacramental records reveal that burial rites and baptisms were the sole domain of the church at San Felipe. This is mirrored in the oral historical accounts that tell of infants being taken to San Felipe to be baptized by their godparents and of men carrying deceased villagers on ladders to be buried there. The narratives also provide evidence of strong social ties between families as well as marriages between Las Huertasanas and San Felipeans (Rebolledo and Márquez 2000). Most marriages took place there as well; although the archival record shows a

few couples chose to be married at Santa Ana and Sandía Pueblos. The connection between San Felipe and Las Huertas is still remembered, as San Felipe Pueblo considers San José de las Huertas to be a site of shared cultural heritage (Lynn Montgomery, personal communication, 2001).

Certainly reciprocity with San Felipe, Santa Ana, and to a lesser degree Zia Pueblo, as well as other nearby Spanish colonial settlements, like Bernalillo and Algodones, was important to the residents of San José de las Huertas. Pottery, an indispensable item, from Las Huertas is evocative of the larger networks in which the villagers were engaged. Furthermore, the exchange of pots, both decorated and undecorated, for goods produced by the Las Huertasanas was undoubtedly nested within a series of complex social relationships that we are just beginning to disentangle.

Imported Ceramics

A small number of imported ceramics were found at San José de las Huertas. Sixty-four sherds from vessels originating in Mexico and Great Britain provide a glimpse as to the kinds of imported wares that came to rest in the homes of the villagers. These uncommon ceramics were composed of three main types: Mexican lead-glazed wares, Mexican tin-glazed wares (or majolica), and refined European earthenwares. Lead-glazed earthenwares comprised 7.8% of the imports with five sherds, 76.6% (or 49 sherds) of the collection consisted of majolica, and ten sherds of refined European wares made up 15.6% of the imports.

Table 4.3: Imported Ceramics

Area	Vessel Fragment	Vessel Form	Count	Ware	Decorative Type	Origin	Mean Date
1	body	jarro choclatero	1	Redware	Galera Ware	Mexico	
	body		1	Redware	Lead-glazed Redware	Mexico	
	body		1	Lead-glazed earthenware	plain	Mexico	
2	body		1	Redware	Green Lead-glazed Redware	Mexico	
	rim	Taza	1	Majolica	Puebla Blue on White	Mexico	1780
	body		1	Majolica	Puebla Blue on White	Mexico	1780
3	body	Taza	1	Majolica	Orangeline Polychrome	Mexico	1825
	body		1	Creamware	plain	Britain	1791
4	body		1	Majolica	plain	Mexico	
	body	brimmed plato	1	Majolica	plain	Mexico	
	body		1	Majolica	San Elizario Polychrome	Mexico	1750
7	body	taza	1	Majolica	19th-Century Mexican Complex	Mexico	1805
	body		1	Majolica	19th-Century Mexican Complex	Mexico	1850
8	body	taza	1	Majolica	19th-Century Mexican Complex	Mexico	1850
	body		1	Majolica	plain	Mexico	
	body		1	Majolica	Puebla Blue on White	Mexico	1780
	body	pocillo	1	Majolica	Puebla Polychrome	Mexico	1695

Area	Vessel Fragment	Vessel Form	Count	Ware	Decorative Type	Origin	Mean Date
9	body	jarro choclatero	1	Redware	Galera Polychrome	Mexico	
	base	brimmed plato	1	Majolica	plain	Mexico	
	body	brimmed plato	3	Majolica	Puebla Green on White	Mexico	1800
	rim	brimmed plato	3	Majolica	Puebla Green on White	Mexico	1800
Ferg House and grid excavations	body	brimmed plato	1	Majolica	Esquitlan Yellow Type	Mexico	1850
	base	brimmed plato	1	Majolica	Orangeline Polychrome	Mexico	1825
	body	brimmed plato	2	Majolica	plain	Mexico	
	body	brimmed plato	1	Majolica	Puebla Blue on White	Mexico	1780
	rim	brimmed plato	3	Majolica	San Elizario Polychrome	Mexico	1750
Surface Collections	body	taza	1	Majolica	19th-Century Mexican Complex	Mexico	1850
	body	bowl	3	Pearlware or Whiteware	Annular Ware, Banded Variety	Britain	1815
	body	plate	2	Pearlware	Blue Transfer Print	Britain	1812
	rim	plate	1	Pearlware	Blue Transfer Print	Britain	1812
	base	plate or saucer	1	Pearlware	Blue Transfer Print	Britain	1812
	body	taza or escudilla	1	Majolica	Esquitlan Black on Yellow	Mexico	1850
	rim	plato	3	Majolica	Huejotzingo Blue on White	Mexico	1775
	rim	plato	2	Majolica	Huejotzingo Variant (Yellow Banded)	Mexico	1810
	base	brimmed plato	1	Majolica	Orangeline Polychrome	Mexico	1825
	body		1	Majolica	plain	Mexico	
	body	brimmed plato	2	Majolica	plain	Mexico	
	body		1	Majolica	Puebla Blue on White	Mexico	1780
	body	brimmed plato	2	Majolica	Puebla Blue on White	Mexico	1780
	rim	taza	1	Majolica	Puebla Blue on White	Mexico	1780
	rim	taza	1	Majolica	Puebla Green of White	Mexico	1800
	body	cup or bowl	1	Pearlware	Red Transfer Print	Britain	1829
	body	gaming piece	1	Majolica	San Elizario Polychrome	Mexico	1750
	rim		2	Majolica	San Elizario Polychrome	Mexico	1750
	body	brimmed plato	1	Majolica	San Elizario Polychrome	Mexico	1750
	rim	plate	1	Creamware	Shell-edged Ware	Britain	1810
	body	brimmed plato	1	Majolica	Tumacacori Polychrome	Mexico	1820
	base	taza	1	Majolica	Tumacacori Polychrome	Mexico	1820

Lead-glazed Wares

A range of lead-glazed coarse earthenwares have been found on Spanish colonial sites from the 16th to the 19th century. And though several of these lead-glazed varieties have been studied and defined, ambiguity remains with respect to dating and places of origins for undefined wares. Some of the ceramic vessels that reached Spanish colonial sites were shipped from the Old World, while others had their origins in multiple locales throughout the Americas. A few of the American ceramic traditions have great time depth as the production of these wares began shortly after European contact (Deagan 1987:47). Yet in spite of this variability, the small numbers of lead-glazed sherds recovered from Las Huertas were manufactured in Mexico.

The quantity of Mexican lead-glazed ceramics varies considerably from site to site in the American Southwest. The ware as a whole was inexpensive, much more so than majolica, and roughly equivalent in cost to Native American ceramics (Fournier 1997). Lead-glazed wares appear to occur with greater frequency at sites in Texas. As such, Williamson (2001:105-106) suggests that the low-cost of these ceramics did not make it worth importing them as far as New Mexico, unless they were brought to the province as personal effects. No doubt Native American ceramics were more abundant and economical, to which their large numbers on colonial sites attests, but it is worth considering the particular needs that lead-glazed wares might have met. For instance, there was probably a demand for particular vessel forms, like chocolate pots, which were not made by local potters: either Indian or Indo-Hispano. These more specialized forms were manufactured both as inexpensive lead-glazed wares and the more costly majolica, making the Mexican lead-glazed wares a more affordable option.

Three lead-glazed sherds were found in Area 1. Two non-diagnostic sherds had reddish yellow bodies with a clear glaze applied to the interior of the vessels. The exteriors were lightly

slipped with the same red-bodied clay. The third sherd was identified as Galera Polychrome. The delicacy of the sherd indicates that it belonged to a chocolate pot. One green-glazed sherd with a pinkish white colored paste was recovered from Area 2. Slipped in a heavy green glaze on both its interior and exterior surfaces, this sherd is reminiscent of the Green Bacín and Green Lebrillo types found at circum-Caribbean sites until 1600. The longevity of some green-glazed wares is evidenced by the Mexican-made *lebrillos* (a flat-bottomed serving dish with sloping sides) that were imported overland to the American Southwest after about 1750 (Deagan 1987:49-50).

A second sherd from a Galera Polychrome chocolate pot was found in Area 9. Smoothed on the interior, this red-bodied vessel was partly decorated with a dark brown slip and light yellow detailing over which the clear glaze was applied. Galera ware is a type of thin-walled, lead-glazed earthenware with a relatively fine paste containing little, if any, sand. The vessels were mold-made in two parts and joined at the shoulder in a comparatively thick and sloppy seam. Vessels were primarily made in the form of chocolate and bean pots and were decorated with dark brown and cream bands, dots, and floral designs, which occasionally had touches of green. Galera appears in Texas soon after 1750 and was popular from Texas to California during the last half of the 18th century (Ivey and Fox 1981:34).

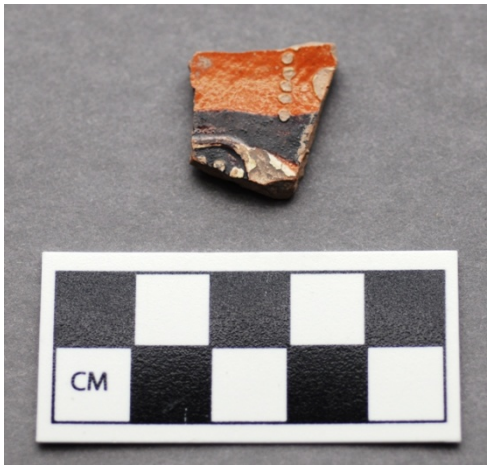


Figure 4-23: Galera Polychrome sherd (Area 9)

Tin-glazed Wares or Majolica

Majolica is a distinctively Hispanic type of glazed, wheel-thrown pottery that is distinguished by its soft earthenware paste covered by an opaque vitreous enamel or glaze. Technically it is related to French faience and English and Dutch delftware by the addition of tin oxide to the glaze in order to produce the opacity characteristic of the ware (Deagan 1987:53). Majolica, or *loza blanca* as it was designated in guild ordinances, began to be manufactured in Mexico City about 1540 (Martínez 2003:231). By the end of the century Mexico City and Puebla de los Ángeles became the most important production centers in the viceroyalty of New Spain, and would continue to be so through much of the 18th century until other centers of production (Guanajuato, Guadalajara, Sayula, Oaxaca, and Aguascalientes) emerged towards the end of the colonial period and the early 19th century (Lister and Lister 2001).

The guild ordinances that regulated majolica production in Puebla and Mexico City indicate that at least three grades of *loza blanca* were produced. According to the ordinances, the preparation of the clay body was to be the same for all grades with the differences laying in the fabrication of the glazes. In spite of this decree, archaeological data from sites throughout New Spain do indicate that at least some variability in clay formulas did occur. Nonetheless, in order to manufacture the glaze for the most basic class of majolica (*loza común*) guild articles required that two pounds of tin be mixed with each *arroba* (about 25 pounds) of lead. In addition, *loza común* was to have very little decoration; and the decoration that was applied to the ceramics was to be painted in blue only. Exceptions to this guideline are found in both the archaeological materials and archival documents. Orange has been found to co-occur with blue on some decorative types, and green was substituted for blue after 1727 at the request of Puebla potters due to its scarcity (Martínez 2003).

The second level of pottery (*loza entrefina*) was finished with a glaze composed of one *arroba* of lead and four pounds of tin. It was decorated only with interlacing or dots, and in combinations of colors which were considered "superior and of great variety" (Martínez 2003:243). The finest grade of majolica (*loza fina*) was to be finished with a glaze of one *arroba* of lead to six pounds of tin. It was strongly suggested that decorative painting should be kept to blue and black as the color green was considered impermanent and subject to crackling. Furthermore, each master was to place his mark on each piece he produced to certify its quality (Martínez 2003:235). Despite this directive, no more than a small number of majolica vessels are known that have marks.

Florence Lister notes that in the actual execution of the *entrefino* and *fino* wares produced in Puebla there is no sharp distinction like there is for the Mexico City wares. The lower grade of majolica manufactured in Mexico City had perceptibly different paste, pigment, and glaze compositions with the popular patterns rarely overlapping the grades, indicating the two could not have been made by the same artisans. In contrast, she suggests that both grades were made in the same workshops in Puebla with the majority of the workers making *entrefino* and a few of the more capable potters and painters dedicating themselves to the rarer *fino* objects. For the Puebla wares, the differences between grades were in the elaboration of forms, sizes, and decoration. "And for the first time in Mexican maiolicas the fino represents production of vessels meant only for ostentatious display" (Lister in Deagan 1987:78). This is significant as it is primarily *loza entrefino* that is found on frontier sites in New Spain.

At least ten decorative types and their variants were recovered from archaeological investigations at San José de las Huertas. The majority of the types are consistent with wares manufactured in Puebla, Mexico. However, based on more recent work on majolicas produced

in Mexico City, Martínez (2003) suggests that there may have been more overlap in decorative styles between the two production centers than previously thought. The periods of manufacture for all but one majolica sherd are consistent with the dates of occupation for the village site. Two basic vessel forms, roughly equivalent to the soup plate and cup, were the only identifiable vessel forms within the majolica assemblage.

One Puebla Polychrome sherd from a *pocillo* was found in Area 8. This tall, narrow, handless cup is an 18th-century form that was often used for drinking chocolate (Williams 2001:93). The polychrome in which the cup was finished is distinguished by its cobalt blue and black (or blackish brown) decoration on a white background. The scroll-like and lobe designs are painted in blue and overlaid by a series of thin black lines in lacey patterns. Black dots are also found, and the blue is often raised from the surface of the vessel. Rarely is Puebla Polychrome painted with other colors. The chronological range of the ware is about 1650 to 1725 (Goggin 1968:173-182; Deagan 1987:81-82). Given its date of manufacture, this sherd likely came from an heirloom piece that was kept by one of the families that settled Las Huertas.

Eight fragments of majolica were identified as being from vessels decorated in the Puebla Blue on White tradition. Puebla Blue on White is the most abundant, widespread, and frequently encountered of the 18th-century majolicas. Its production spanned a long period, from about 1675 to 1830 (Deagan 1987:84). Snow (1965:28) suggests the type be divided into at least two periods since it has been found at sites in New Mexico dating from 1598 to 1850. No doubt Puebla Blue on White subsumes a large variety of decorative types, its definition being modified over the years to reflect new findings. For the purposes of this study, I will rely on Goggin's and Deagan's definitions.

As indicated, Puebla Blue on White encompasses a wide range of variation in its designs and its execution, which includes *fino* and *entrefino* grades. Most commonly found on archaeological sites, Puebla Blue on White *entrefino* has a cream-colored or off-white, glossy, background enamel painted with blue designs in one or two shades of blue. *Fino* vessels have whiter backgrounds with well executed and more complex designs covering most of the vessel. Based on Lister's and others' (e.g. Williamson 2001 and Martínez 2003) discussions of *fino* and *entrefino*, it may be the quality of decorative painting and vessel form that better serve as indicators of a *fino* piece since the differences between glazes applied to the two grades can be subtle and difficult to distinguish.

Design motifs for Puebla Blue on White are highly varied on both grades, with abstract florals, dots, lobes, and lines being the best documented. Ornamentation changed gradually throughout the 18th century, moving from predominantly Chinese and Talavera-inspired decorations to motifs based on the prevailing English refined earthenware styles (such as edged creamware and pearlware). Later vessels typically had a series of bands and lines along the rim with pendant lobes positioned at intervals from the rim bands. In the centers of the vessels, floral elements, animals, or birds were depicted (Goggin 1968:190-196; Deagan 1987:83-85).

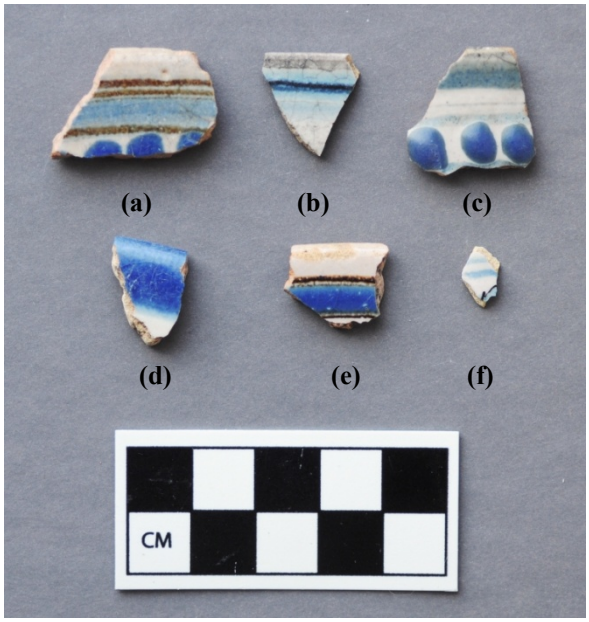


Figure 4-:24 Pueblo Blue on White Wares

(a) San Elizario Polychrome, Surface Collection
(b) Puebla Blue on White, Area 2
(c) Puebla Blue on White, Surface Collection
(d) Huejotzingo Blue on White, Surface Collection
(e) San Elizario Polychrome, Surface Collection
(f) Puebla Polychrome, Area 8

One Puebla Blue on White rim sherd from a *taza*, or bowl-like cup, and a body sherd from an unidentified vessel were found in Area 2. Area 8 yielded a body sherd from another unidentified vessel, while a fragment from a brimmed *plato* (a *plato* with a wide rim) was recovered from the stripping grids near the house excavated by Ferg. Surface collections accounted for four Puebla Blue on White pieces and included two body sherds from brimmed *platos*, a *taza* rim, and a body sherd from an unidentified vessel (Ferg 1984:55).

Three rim sherds from Huejotzingo Blue on White *platos* were recovered from surface collections at the site. A variant or subtype of Puebla Blue on White, Huejotzingo Blue on White is distinguished by its single blue band at the rim of a vessel and the absence of any other decoration. The band of color may cover the adjacent inside and/or outside of the lip (Goggin 1968:195-196; Deagan 1987:83). Huejotzingo sherds can be difficult to positively identify on smaller sherds as they could emanate from Puebla Blue and White vessels in which the design occurs lower on the vessel form.

Surface collections also yielded two rim sherds from the same Huejotzingo Variant *plato*. While this *plato* was of the yellow banded variety, Huejotzingo Variant may consist of either an emerald or yellow band, which is usually wavy, applied to the rim of the vessel. Sometimes a thin black line is found below the colored rim band. The more popular blue banded type dates from about 1700 to 1850, while the green and yellow variants begin a little later, dating from 1770 to 1850 (Ferg 1984:56).

Another subtype of Puebla Blue on White, San Elizario Polychrome has blue designs on a white background. The rims, however, are distinguished by a wide, blue band edged in black or brown with blue pendant elements suspended from the rim band. The most characteristic feature of San Elizario Polychrome is the image of a long-legged shore bird with a blue body (or,

less commonly, green or brown), and brown or black legs and beak painted in the *plato's* center. This polychrome has a date range from about 1750 until 1850 (Deagan 1987:85-86).

Eight pieces of San Elizario Polychrome were recovered from Las Huerats and include a rim fragment from Area 4 and three *plato* sherds (two of which refit) from the stripping grids near the Ferg house. Surface collections produced a *taza* rim, two rim sherds from unidentified vessels, and what is thought to be a gaming piece made from the base of a *plato*. It is vaguely possible that the gaming piece could have been a blank for a spindle whorl, but the sherd seems a little large (4 cm in diameter and 8.5 mm thick) for this purpose. And although the circular piece is broken in half, there is no evidence of a drilled whole at its center.

Figure 4-25: San Elizario Polychrome gaming piece

Seven sherds were identified as belonging to Puebla Green on White, manufactured from about 1775 to 1825. This ware is a variant of Puebla Blue on White that is distinguished by having a Puebla rim-band with the accompanying pendant petal design executed in green rather than blue. The rim treatment is often associated with the central design of a long-legged shore bird, like that typical of San Elizario Polychrome (Deagan 1987:85; Seifert 1977:188). One body and three rim sherds fit together and are from the same brimmed *plato* found in Area 9. Two additional

Figure 4-26: Puebla Green on White *plato* (Area 9)

body fragments recovered from this area have the same decoration and are likely from the *plato* as well. Surface collections produced one *taza* rim fragment with a green rim below which are two black framing lines.

The Puebla Green on White sherds proved to be more challenging to classify than the other majolica sherds in the assemblage. This was in part due to there being few comparative vessels or sherds upon which to draw. As such, it is interesting to note that the leafy pattern on the brim of the *plato* in Area 9 is very similar to the green leaf-spray motif found on Nopaltapec Polychrome. Yet despite this similarity, the color of green used on the sherds from Las Huertas is in accordance with that painted on other Puebla Green on White vessels. Moreover, the decorations and painting style are more similar to Puebla Blue on White, only executed in green, than any other ware. The design elements are executed in green with black being used to better define or accent the green painting.

The earliest styles of majolica manufactured in the 19th century developed out of the 18th-century Aranama Polychrome tradition. One of these new types was found at Las Huertas and is named Orangeline Polychrome. This ware is characterized by a black-bordered orange rim band with aqua-green dots or floral elements suspended from it, though yellow design elements may occur as well. Like San Elizario Polychrome the central decoration consists of either floral or animal designs but is executed in green rather than blue. The ware has a

Figure 4-27: Other Majolica Wares
Top: 19th-Century Mexican Complex, Area 7
Left: Puebla Green on White, Surface Collection
Right: Orangeline Polychrome, Area 3

date range of 1800 to 1850 (Deagan 1987:88-89). Three sherds of Orangeline Polychrome were discovered at the village site. They consist of a *taza* body sherd from Area 3, a *plato* base fragment from the Ferg house, and a *plato* base sherd recovered during surface collections.

The first decades of the 19th century also saw the production of a new distinctive group of Mexican majolicas that Seifert has referred to as "the nineteenth-century complex." Twenty-three types have been defined based on specific design elements painted in particular color combinations that include two or more of the following: emerald green, rust, orange, yellow, and brown-black. Unlike the majority of majolicas from the previous century, blue is rarely used. The design elements in the 'nineteenth-century complex' typically depict geometric motifs, such as wavy lines, bands, chains, dots and some stylized floral elements in various combinations. As its name suggests, the period of manufacture for this general grouping is 1800 to 1900 (Deagan 1987:89-90; Seifert 1977).

Four sherds were identified as belonging to the 'nineteenth-century complex' of majolica due to their decoration or enamel color. Two *taza* body sherds, one from Area 8 and another from surface collections, have been painted with a very pale green glaze in which a smidgen of green decoration can be seen at the sherds' edge. Two other sherds found in Area 7 have bodies covered in off-white to pale greenish-yellow enamel. One could not be identified as to vessel form, but the other is from a *taza* decorated with a band of yellow that is bordered with a thin black line on one edge. Another black line bisects the yellow band. Cordelia Snow dates this last sherd from 1800 to 1810 for New Mexico (personal communication, 2003).

One body sherd from a *taza* or *escudilla* (small bowl) of Esquitlan Black on Yellow was recovered from surface collections. This 'nineteenth-century complex' type is characterized by a yellow background enamel with black to brown designs; although orange was occasionally used

as well. Banded and floral designs are the most common decorative elements, but combinations of cross hatching, wavy-lines, and dots can also occur. An additional yellow-enameled, body sherd from a *plato* was found in the stripping grids near the Ferg house and was identified a belonging to the Esquitlan wares more generally as no decoration was present. There is a green variant of the black on yellow type in which the decoration is executed in green instead of black. Esquitlan Green on Yellow also has floral, banded, or dot designs on a yellow background enamel. Both Esquitlan wares were likely produced in Puebla and date from 1800 to 1900 (Seifert 1977).

The footring of a *taza* and body sherd from a *plato* decorated in the Tumacacori Polychrome tradition were collected during surface investigations at the site. Tumacacori Polychrome is another 19th-century majolica type and is known for its thick, pale blue background enamel. Small design elements are painted over the background in yellow, orange, green, dark blue, and brown or black. The designs usually consist of a wavy line surrounded by dots and floral motifs. These are spaced around the rim in regular units, in the center of vessels, and sometimes in Chinese-inspired reserved panels. Three varieties (I, II, III) have been recognized based on changes in the design elements. No such distinction was made in this study. As such, the manufacturing dates for the Tumacacori Polychrome sequence are 1780 to 1860 (Deagan 1987:90; Goggin 1968:198-200).

The majolica assemblage for Las Huertas contains nine plain white sherds. Area 4 yielded one body sherd from an unidentified vessel and one from a *plato*, as did the surface collections. Another unidentified body sherd was found in Area 8. Area 9 produced a *plato* base fragment that included a small piece of the footring and that portion of the *plato* that begins to curve upwards toward the rim. It is very probable that these sherds are not indicative of the

presence of plain majolica at the site, but instead are undecorated fragments from other kinds of vessels. The assumption that little or no plain wares are present is bolstered by the fact that no plain rim fragments were found. Furthermore, the paste color of the undecorated sherds ranges from cream to buff or peach, which is inconsistent with the brick red or terracotta colored pastes that usually characterize plain wares such as Mexico City White.

Refined European Earthenwares

All but one of the refined European earthenware sherds were recovered from surface collections conducted at the archaeological site. One small undecorated fragment of a creamware vessel was found in Area 3, the excavated plaza surface north of Area 8. The surface collections yielded three body sherds of annular ware, the banded variety, from what were likely small bowls. One rim sherd from a plain colored, shell-edged plate was also found. Transfer printed wares were either blue or red in color. A body sherd from a red transfer print cup was discovered near the center of the walled-village. While the blue transfer print sherds included one body and two rim sherds from plates as well as a portion of a footring from either a plate or saucer.

Given its cream-colored glaze, the shell-edged decorated plate belongs to that refined British earthenware known as creamware. The creamware body and edge decoration are suggestive a date of manufacture spanning 1800 to 1820. The body glazes applied to the remaining refined earthenwares were more difficult to identify with certainty due to the small sherd size, and the fact that the characteristics distinguishing pearlware from whiteware are sometimes vague. The mildly off-white glaze, sometimes having bluish tint, of the transfer printed wares indicate that these wares are pearlwares and not whitewares. As such, the blue

printed vessels have a date range of 1784 to 1840, with the red transfer print having a later initial production date of 1818. The annular wares were harder to differentiate and may include whiteware, pearlware, or a combination of both glaze and clay body types. The production dates for the banned pattern on pearlware are 1790 to 1820; while its whiteware counterpart dates from 1830 to the 20th century (Noël Hume 1970; Miller 1991; Samford 1997; Sussman 1977, 1997). In view of the ambiguity surrounding the type of earthenware body used on the annular wares, a date range of 1790 to 1840 was used. The end date of 1840 was chosen because banded wares became available only in one variety after this date.

The refined European earthenwares found at Las Huertas appear to be British in origin and probably came into the village towards the end of its occupation. The only exception would be the creamware sherd from Area 3, which may have a slightly earlier date. Though American goods were obtainable after 1821, some English wares became legally available during the latter decades of the Spanish occupation. Following trade agreements between Great Britain and Mexico in 1824, large quantities of English wares quickly spread throughout Mexico. As a result, majolica lost out to English and American wares as an indicator of high status early in the 19th century. The ready availability of Anglo wares in the wake of these trade agreements nearly destroyed the Mexican majolica industry, which had flourished since the 16th century. Consequently, virtually no majolica has been found at sites in New Mexico dating to after 1840 (Di Peso 1953:183; Seifert 1977:163; Williamson 2001:92).

Summary

Traditionally archeologists have used majolica to determine site chronology, socioeconomic status, and trade routes (Seifert 1977). The trade routes for New Mexico are known as virtually all of the majolica that reached the province arrived over the Camino Real or Chihuahua Trail (Williamson 2011:93). The majority of majolicas found at Las Huertas likely came from Puebla as it was the primary production center in Mexico during the time period the village was occupied. After about 1750, Mexico City declines in importance as the manufacture of majolica appears to cease in the capital (Deagan 1987:87). Furthermore, other centers of majolica production do not arise until the turn of the 19th century.

Virtually all of the imports collected at San José de las Huertas are contemporaneous with the dates of occupation as conveyed by the historical documents. There is one distinct exception, a sherd from a *pocillo* dating prior to 1765. This does not seem unusual as the Puebla Polychrome *pocillo* is thought to be an heirloom piece belonging to, and curated by, the family who occupied the house in Area 8. The refined British earthenwares may pose another potential dating anomaly.

Only one fragment of creamware was recovered from excavations while the remaining nine British-made sherds constitute surface finds. It is possible that these sherds may be intrusive—associated with the reoccupation of the land grant and the founding of the descendant village of Placitas. While the initial production dates of the British wares are early enough in the 19th century (or late 18th century) to coincide with the habitation of Las Huertas, the peak production dates from some of the decorative styles indicate a later period of popularity. For instance, the peak production dates for blue transfer prints were 1817 to 1848, for red transfer prints they were 1829-1842, and the blue banded variety of annular ware was more typical of the

mid-19th century (Samford 1997; Sussman 1997). The shell-edged creamware sherd comes from the only surface-collected vessel not produced later than 1820 or thereabout. Regardless of their periods of popularity, if the refined British wares were procured by families residing in Las Huertas, then they would have entered the village towards the end of its occupation.

Although the span of occupation for the village is known from the historical record, the imported ceramics with defined dates of production were used to calculate the mean ceramic date for Las Huertas. Based on both Mexican-made and British-made wares the mean ceramic date for the village is 1793. Using the majolica alone, the date is slightly earlier at 1788; and the British wares yield a later date of 1812. Regardless of how the wares are combined, all ceramic dates occur prior to the abandonment of the village in 1823. Moreover, the mean ceramic date as calculated using all the imports is only one year different from the median date (1794) of habitation as derived from the historical documents.

So what did it mean for Spanish colonists living in New Mexico, and other locales, to own a piece of *loza fina*, *entrefina*, or *común*? This is more difficult to discern than its monetary value and production dates, as there is little mention of majolica in the documentary record (Goggin 1968:217). Consequently, much of what we know about these ceramics has been extrapolated from the circumstances in which they are mentioned and the archaeological contexts in which they are found. In the Spanish Colonies, majolica is most abundant on archaeological sites where the clergy, government officials, and the wealthy lived. While it is also found on Native American sites, it is never common. Perhaps it may be that majolica recovered from this last context represents special gifts to Indian leaders or allies (Goggin 1968:211).

Partly a consequence of its remoteness, relatively little majolica is found in New Mexico when compared with other colonial provinces. At archaeological sites in New Mexico, majolica,

Chinese porcelain, and other exotic sherds seldom account for more than two or three percent of the total number of ceramics recovered from any given site. Indeed, the numbers are frequently lower at residential sites than those associated with clerical and governmental activities (Snow 2005:188, Williamson 2001:92). Despite these small numbers, Snow observes that majolica is ubiquitous on colonial sites throughout New Mexico.

Considering the exorbitant freight costs of shipping majolica to this northern frontier province, it is almost a given that some degree of high-ranking, socioeconomic status was associated with the ceramic. Regardless, majolica did become more common over time (Williamson 2001). Based on the supply train that was to outfit the missions of New Mexico with a box of "*loza de Puebla*" (among other provisions) every three years, Snow conservatively estimates that nearly two to three thousand vessels of majolica were transported to the missions from the period 1630 to 1680 (2005:189). The extensiveness of majolica was observed by Fray Domínguez during his tour of the province in 1776 when he noted that even the poorest chapel had a Puebla plate on which to put the cruets (Lister and Lister 1982:121).

Although the majolica provided by the mission supply service was intended to stock the infirmary alone, it has been suggested that after the friars replaced any broken dishes they sold off the surplus to the colonists as a means for raising mission funds (Snow 2005). With the money they earned from their many commercial activities, the friars also placed special orders, which occasionally included additional requests for majolica—further increasing the number of vessels entering the province (Pierce 2003:264). Thus, majolica that was obtained and sold through the missions would have provided an avenue other than the merchant-controlled caravans through which majolica entered colonial households.

Given the ways in which New Mexico was supplied, consumers of majolica likely had little choice as to the patterns that adorned their homes. This is reinforced by the suspicion that merchants frequently unloaded wares that had lost their popularity in the cultural core on frontier settlements (Lister and Lister 1982:95). Even if New Mexico was receiving outdated or unpopular majolica wares, it likely mattered little to those who found it difficult to obtain even a single piece of *loza blanca*. For these tin-glazed vessels were undoubtedly imbued with greater significance than the aesthetic of an ordinary dinnerware or other kind of vessel.

As a matter of practice, any sizeable amount of majolica recovered from Spanish colonial sites has been broadly associated with Hispanic culture in New Mexico. Though this may be problematic given the flexibility with which *casta* designations were sometimes given and the level at which people intermingled, majolica is still a significant socio-cultural marker that should not be summarily dismissed. Even though socioeconomic status did not necessarily follow genetic status, and one relatively rare artifact class could not hope to distinguish between the various *castas*, it seems reasonable to believe that majolica did serve some meaningful role in the lives of colonial New Mexicans. Otherwise, it would not appear in so many households at so many settlements throughout the province.

Rather than directly equate majolica with the presence of 'Spaniards,' it is more fitting to see its presence as marking sites that have been occupied by Spaniards, those of Spanish descent, or those who had acquired or adopted Spanish tastes. Furthermore, these fragments of pottery can be understood as coming from whole vessels that were used by individuals who had knowledge of polite behavior, a sense of decorum in religious ritual, and of a particular social order. In other words, "vessels of Mexican and Spanish majolica and Chinese porcelains were a

means by which the colonists maintained their ties to polite society, the homes and manners of family—the culture of which they were apart" (Snow 2005:188).

In spite of the modest documentary evidence for this largely illiterate population, clues as to proper behavior for colonial New Mexico can be gleaned from a variety of sources. *Casta* paintings from colonial Mexico depict idealized social bodies and were illustrative of the behavior and possessions inherent to members of individual castes (Carrera 2003; Katzew 2004). A small number of colonial wills and inventories from this frontier province that mention majolica and other imports are also helpful in determining the use of these items. Finally, oral traditions in the form of *dichos*, *cuentos*, *corridos*, and *canciones* (proverbs or folk sayings, stories, ballads, and songs) accumulated by descendants of the colonists provide reminders of correct and preferred behavior (Snow 2005; Weigle and White 1988). One mannerly act, and significant custom of New Spain, was the consumption of chocolate.

Chocolate was extremely popular and more widely consumed in the New World before it became fashionable in Spain and the rest of Europe. By the second half of the 16th century, chocolate was the drink of choice in Mexico (Snow 2005:193). In fact, the consumption of chocolate, like that of tobacco, became a habit that Spaniards of all social classes had become addicted (Casanovas 2003:68-69; Snow 2005:193). Following traditional Aztec practices, the Spanish produced chocolate wafers or small bricks for easy storage and shipment. In this way, the practice of consuming chocolate spread throughout the Americas, becoming a staple on expeditions and military campaigns as well as in domestic and religious spheres. By the early 1600s, chocolate consumption is documented as having reached as far as Peru to the south and New Mexico to the north (Pierce 2003).

The presence of Chinese porcelain and Spanish and Mexican majolica at the capital of San Gabriel, established in 1600, implies that the creolized Spanish custom of drinking chocolate may have entered New Mexico with Juan de Oñate. Though chocolate does not appear on supply lists in the early 1600s, by mid-century there is documentary evidence for at least the occasional, if not more frequent, consumption of chocolate (Snow 2005:193). Archival and archaeological records further show that chocolate consumption became even more popular during the 18th and early 19th-centuries.

Don Diego de Vargas, captain general and the first governor of New Mexico following the Reconquest (1691-1707), considered it a staple rather than a luxury for his troops, repeatedly including it in his supply requisitions. Its importance is alluded to in his personal inventory, which included about 225 pounds of chocolate, 39 copper chocolate pots, and eight dozen chocolate beaters; presumably all for resale. De Vargas also served chocolate as a ceremonial drink to important figures, including local Indian leaders, as a way of formalizing a verbal agreement. While traveling or in the field on military campaigns, it was often the only sustenance served for breakfast and lunch. In addition to being a major commodity in the inventories of merchants active in New Mexico during the colonial period, Franciscan friars also imported chocolate for use in the missions as drinking it did not interfere with religious fasting (Pierce 2003:249-250; Snow 2005:193-194). Clearly, the consumption of chocolate was an important ritual for much of Colonial New Mexico society.

Vessel forms provide the only indicators from San José de las Huertas that chocolate may have been consumed by the families residing in the village. Forty-four sherds were identified as to vessel form and include two chocolate pots, one *pocillo*, seven *tazas*, 28 *platos* or brimmed *platos*, one teacup, four plates, and one plate or saucer. The *jarros choclateros* and *pocillo* are

forms specifically associated with the drinking of chocolate, but the use of the *taza* cannot be ruled out as well. It is probable that *taza* was a more generic term for the *jícara*, an extant form still found in Mexico. Adapted from the Aztec xicalli, or lacquered gourd cup, the *jícara* was the vessel used for drinking chocolate. Having the appearance of a small bowl, the form became similar in size and shape to the handless Chinese porcelain teacup when manufactured in majolica (Pierce 2003:253-254).

With a total count of 28, and a minimum vessel number of 20, it is plain that the *plato* is the most numerous vessel form. That the *plato* is more common is to be expected as it would have performed the role of serving an individual at mealtime (Sunseri 2009). The overall lack of variety in vessel form at Las Huertas, which essentially includes soup plates, cups, and chocolate pots, is indicative of the kind of "table" set by the villagers. The drinking of some chocolate and other hot beverages is implicated by the *jarro choclatero* and handleless cup. Soup plates suggest that the villagers ate meals to which this form was best suited, or at least satisfied the users' sensibility as to what constituted a proper dinner dish. While three fragments of Mexican lead-glazed wares could not be identified as to form, it is reasonable to assume that these pots served similar functions to their majolica counterparts. As stated previously, refined European earthenwares replaced majolica as an indicator of status or polite society during the 19th century.

It is significant that no Chinese porcelains were found among the imported wares at Las Huertas. Undoubtedly, this far-flung porcelain was economically out of reach for the villagers. As Chinese porcelain was the most expensive imported ceramic, it may have served as a more effective indicator of high socioeconomic status within Spanish Colonial society. I expect that it was less identifiable as a symbol of 'Spanishness' on the frontier than majolica and other Mexican-made wares, especially for those of lower status.

With its entrance into New Mexico in the caravans of conquistadors and its continued transport over the Camino Real, majolica became a symbol of cultural identity, of the 'Spanishness' of those who occupied the region. It did not matter whether these individuals were actually of Spanish descent or not. Rather its use reflected a familiarity with the customs, rituals, and traditions of polite society on the frontier (Snow 2005). Although majolica, along with the other imported ceramics, only makes up a small portion of the archaeological assemblage from San José de las Huertas, the vessels from which these fragments came were surely precious to those who owned them.

Like other areas of New Spain, these vessels were used alongside local Pueblo Indian ceramics in the multicultural kitchens and dining areas of the villagers where they became part of daily life. Since all excavated households at Las Huertas produced at least some evidence of majolica or Mexican lead-glazed wares, we can make the assumption that the villagers shared a common understanding of codified behavior regardless of their castes or cultural origins. One custom of which they appear to have been mindful was the serving of chocolate as a gesture of hospitality. These imported dishes provide tangible evidence of the villagers' fluency with mannerly behavior and polite society in New Mexico. This is significant because it demonstrates that those possessing such wares are able to act 'Spanish' if necessary—a performance that was acted in opposition to the indigenous people of the province.

Lithics

All flaked stone artifacts recovered from San José de las Huertas were examined by James L. Moore of the Office of Archaeological Studies at the Museum of New Mexico. As the aim of the lithic analysis was to generally characterize the assemblage and determine the fundamental economic activities in which the villagers were engaged, the level of analysis undertaken by Moore was rather basic. For each artifact in the assemblage he identified material type, artifact morphology, the presence and type of any cortical rind, and evidence of alteration. The latter took two forms: thermal alteration and evidence of informal tool use. These attributes were used to provide a basic characterization of the assemblage as a whole that could then be compared to other flaked stone collections found at Spanish-American sites in New Mexico. A total of 494 artifacts were examined using a binocular microscope at 20x-80x (Moore 2005). Table 4.4 shows the distribution of the assemblage by material type and artifact morphology.

Table 4.4: Material Type by Artifact Morphology

Material Type	Core Flakes	Biface Flakes	Bipolar Flakes	Angular Debris	Cores	*SAL Flints	*SAL Flakes	Bifaces	Projectile Points	Scrapers	**Totals**	**Percents**
Pedernal Chert	97	1	1	66	3	29	18		2		217	43.9
Madera Chert	5			5		2			1		13	2.6
Chert	28	1		18	1	4	1	1			54	11.0
Obsidian	39		1	9	1			1	2	1	54	11.0
Polvedera Obsidian	10			1					1		12	2.4
Chalcedony	1										1	0.2
Silicified Wood	2			1	1	1					5	1.0
Limestone	27			10							37	7.5
Andesite	20	2		7				1			30	6.1
Rhyolite	9			3							12	2.4
Aphanitic Rhyolite	8			1							9	1.8
Quartzite	7										7	1.4
Quartzitic Sandstone	1			1							2	0.4
Granite	1										1	0.2
Massive Quartz	17			9							26	5.3
Basalt	7			2					1		10	2.0
Igneous Undifferentiated	3										3	0.6
Unknown	1										1	0.2
Totals	283	4	2	133	6	36	19	3	7	1	494	
Percents	57.4	0.8	0.4	26.9	1.2	7.3	3.8	0.6	1.4	0.2		100.0

*SAL = strike-a-light

Materials and Sources

Chertic materials include named varieties (Pedernal and Madera), generic chert, silicified wood, and chalcedony. They comprise 58.7% of the assemblage, which is rather low when compared to other Spanish-American sites from New Mexico with documented lithic assemblages. On average, chertic materials from Spanish-American sites have comprised 79.5% of the lithic assemblage; and in the analyst's experience, only one other site has produced a smaller percentage than that found at Las Huertas (Moore 2005:1). Ferg's excavations of the house outside the village walls show similar results. While only 26 pieces of flaked stone were recovered, 54% of the small assemblage was comprised of chert and chalcedony—the majority of which was chalcedony and not chert (Ferg 1984).

Table 4.5: Material Type by Artifact Morphology for House Excavated by Ferg

Material Type	Cores	Flakes	Angular Debris	**Totals**	**Percents**
Chert	1			1	3.8
Obsidian	1	5	4	10	38.5
Chalcedony		9	4	13	50.0
Quartzite	1		1	2	7.7
Totals	3	14	9	26	
Percents	11.5	53.9	34.6		100.0

Chertic materials were primarily selected for reduction and use by Spanish colonists because they produced sharp cutting edges and could be used as strike-a-lights in fire-making tasks. The comparatively low percentage of chertics recovered from Las Huertas could be indicative of two diverse possibilities. Firstly, fire-making was an important task in which flaked stone tools were used, but this use was not as dominant as it was at several other sites studied by the analyst. The other explanation for the distribution of material types at Las Huertas is that the assemblage created by the villagers has been somewhat diluted by the presence of prehistoric flaked stone artifacts.

Although San José de las Huertas may have been situated on top of prehistoric agricultural fields, no prehistoric features were discovered during our archaeological investigations at the site. Another explanation for the presence of prehistoric lithics is that they were scavenged for reuse from local prehistoric sites. Some salvaging of lithic materials probably did occur given the ease of access to a small prehistoric pueblo and pit-house site on the south side of Las Huertas Creek. Furthermore, numerous prehistoric and proto-historic sites have been identified throughout Las Huertas Canyon (Scurlock 1983).

The original sources for many of the lithic materials identified at San José de las Huertas are known. Pedernal chert was the most frequently occurring material type. It outcrops in various locations in the Rio Chama Valley of northern New Mexico, but is also found in gravel deposits along the Rio Chama and the Rio Grande below the confluence of those rivers. Pedernal chert is commonly found on prehistoric sites in the Albuquerque area, so its presence and dominance at Las Huertas was to be expected. Madera chert outcrops in the Madera limestone formation, which is situated in the Sangre de Cristo Mountains in the Santa Fe and Pecos areas. This material could also have been fairly easily procured by the inhabitants of the Las Huertas area as it probably moved down the Santa Fe River into gravel deposits along the Rio Grande below the confluence of those rivers (Moore 2005:2).

Both Polvedera and unsourced obsidian were identified in the lithics from San José de las Huertas. All obsidian artifacts likely came from Jemez Mountain sources, but only the material from the Polvedera Peak source can be reliably differentiated visually. These materials often occur as float gravel deposits along the Rio Grande below its confluence with the streams that empty out of the Jemez Mountains. Andesite and basalt were also utilized by the villagers. The andesite samples were similar to materials found at andesite quarries north of Taos by Boyer and

Moore (2001). As Taos area volcanics have continually eroded into the Rio Grande and moved downstream as gravels, the presence of andesite in the assemblage is not unusual. Basalt outcrops in the Bernalillo area near Las Huertas and commonly occurs in the Rio Grande gravels as well (Moore 2005:2). As such, this material could be procured by the inhabitants of the area without any difficulty.

Two types of rhyolite were distinguished in the study conducted by Moore: generic rhyolite and aphanitic rhyolite. These two igneous materials are distinguished from one another by the crystalline size of the rock matrix. Aphanitic rhyolite is very fine-grained and can sometimes be confused with chert. However, the presence of larger mineral inclusions, or phenocrysts, provides a good marker of aphanitic rhyolite. Generic rhyolite is grainer than the aphanitic variety, but is still fairly fine-grained. Though the source of the Las Huertas rhyolites is not known, they are very similar to materials identified in assemblages from the Rio Ojo Caliente Valley and from the Tesuque area (Moore 2005:2-3). If they do originate from outcrops in the Chama-Ojo Caliente region, they would have been carried into the Rio Grande as gravels by those rivers.

Given that the quartzite, quartzitic sandstone, silicified wood, and generic cherts were more difficult to attribute, Moore was unable to identify the source locations for these materials. Other materials, however, may have outcropped locally. Massive quartz is commonly found in river gravels, but also outcrops in the Sandía Mountains. Limestone outcrops locally and is unlikely to have been moved too great a distance by water. The single specimen of granite identified in the assemblage was most likely procured locally as well.

Another indicator of how lithic materials were procured is the type of weathering that occurs on the cortical surfaces present on flaked stone artifacts. While not all lithic artifacts

retain cortical surfaces, those that do can provide a clue as to where those materials were acquired. Two types of cortex were identified in the Las Huertas assemblage: waterworn and nonwaterworn (Moore 2005). Nodules possessing waterworn cortex have been ground smooth on their exterior surfaces as a result of being moved by water through river and stream beds. In contrast, nonwaterworn cortex occurs when the surface of a nodule is chemically rather than mechanically weathered. Typically the surface of the nodule is not reshaped unless the exposed material is susceptible to being dissolved by rainwater (limestone for example). This can create a cortex that is different in color and/or luster from that of the interior of the nodule, despite its not being mechanically impacted. As such, it can be difficult to distinguish between waterworn and nonwaterworn cortex types. Where the cortex type was indistinguishable or the remaining cortex was too small to accurately identify, the artifact was categorized as indeterminate (Moore 2005:3). The distribution of cortical type with respect to material type is displayed in Table 4.6.

Table 4.6: Cortex Type by Material Type

Material Type	Waterworn Cortex	Nonwaterworn Cortex	Indeterminate Cortex	Totals	Percents
Pedernal Chert	65			65	43.6
Madera Chert	4			4	2.7
Chert	8			8	5.4
Obsidian	4	2		6	4.0
Polvedera Obsidian	1			1	0.7
Chalcedony	1			1	0.7
Silicified Wood	3			3	2.0
Limestone	12	5	1	18	12.0
Andesite	8			8	5.4
Rhyolite	7			7	4.7
Aphanitic Rhyolite	7			7	4.7
Quartzite	3			3	2.0
Granite	1			1	0.7
Massive Quartz	12			12	8.0
Basalt	2		1	3	2.0
Igneous Undifferentiated	1			1	0.7
Unknown		1		1	0.7
Totals	139	8	2	149	
Percents	93.3	5.4	1.3		100.0

While cortical type indicates only where a specific artifact was acquired, the frequency with which specific cortical types occur can be used to extrapolate the point of collection for other artifacts of that same material type within an assemblage. Therefore, the high percentage of Pedernal chert with waterworn cortex (shown in Table 4.6) suggests that all specimens of Pedernal chert collected from the site were extracted from gravel deposits. Where cortex was present, 93.3% of the artifacts had waterworn cortex, indicating that the bulk of the materials used at San José de las Huertas were most likely obtained from gravel deposits along rivers and streams. In fact, all chertic materials with identifiable cortex were from gravel beds, and

probably from ancestral Rio Grande terraces. The same holds true for most of the materials in the assemblage.

Though waterworn cortex present on limestone and obsidian materials indicate that they were collected from gravel deposits, a significant percentage (33% for obsidian and 28% for limestone) of these materials had nonwaterworn cortex as well. This suggests that some limestone and obsidian were obtained at or near where they outcrop. The presence of nonwaterworn limestone is not surprising as limestone outcrops in the Sandía Mountains and the distance traveled to obtain the material would not have been great (Moore 2005:4). However, the occurrence of obsidian is a little more difficult to explain. Obsidian artifacts with nonwaterworn cortex suggest that they were procured in the Jemez Mountains, more than 40 miles away. As it is extremely unlikely that the villagers of Las Huertas were traveling a distance that great to either acquire obsidian or to graze their flocks, the artifacts could be contaminants from prehistoric usage of the site or they could have been collected from previously occupied sites in the area. Given that our excavations produced little evidence of prehistoric occupation at Las Huertas, some salvaging from local sites must have occurred.

Scavenging lithic materials from previously occupied sites is common and has a long tradition in the American Southwest. Older sites often afford a good source for materials that might not be commonly available in their raw form locally (James Moore, personal communication, 2005). In the case of the Las Huertas materials, two methods were used to distinguish salvaged materials from those that were probably reduced in situ. The first method was to use diagnostic characteristics to attribute artifacts to a period other than the one being studied. Spanish colonists in New Mexico practiced a flaked stone technology that was largely dominated by core-flake reduction. As such, fragments of large bifaces, large diagnostic

projectile points, and flakes removed from large bifaces were considered to have been salvaged from local Archaic Period sites. The second method used by Moore was only applied to obsidian. Using obsidian hydration as an indicator, fresher flake scars were distinguished from long-standing ones. Similarly, salvaged limestone artifacts were also somewhat distinguishable from those reduced in situ, as artifacts with heavy surficial chemical weathering possibly represented salvaged materials (Moore 2005:4-5).

Materials that appear to have been salvaged included 16 flakes, three pieces of debitage, a scraper, and four formal tools, which comprised 4.9% of the total assemblage. The formal tools consisted of an Early-Middle Archaic, basalt, projectile point base (Bajada or San Jose Point) and three large biface fragments of andesite, chert, and obsidian. The point was definitely salvaged from an Archaic site, and since there is no evidence to suggest that Spanish-Americans ever produced large bifaces, all three biface fragments were likely scavenged as well (Moore 2005:5). The collection of the obsidian biface is further supported by a very dull, hydrated surface.

Of the potentially salvaged pieces of debitage, three are flakes that were removed during the manufacture of large bifaces. The flakes were of Pedernal chert and andesite and were likely obtained from local Archaic Period sites. The remaining debitage consisted of seven pieces of obsidian and two extremely hydrated flakes of Polvedera obsidian. These artifacts include both flakes of obsidian with nonwaterworn cortex (Table 4.6) implying that all the obsidian debitage that were procured at or near their outcrops were salvaged from previously occupied sites. Thus, there is no evidence for the Las Huertasana procurement of obsidian from its source. Lastly, a limestone flake exhibiting a significant amount of chemical weathering on all surfaces also appears to have been collected elsewhere, as the degree of weathering is not consistent with and

is out of proportion to that of the other limestone artifacts identified in the assemblage (Moore 2005:5).

In summary, three sources for lithic materials were indentified in this study: gravel deposits, local outcrops, and archaeological sites. Although the majority of the lithic materials identified in the assemblage were procured from gravel deposits along the Rio Grande, this does not necessarily imply these deposits occur in the modern Rio Grande Valley. Earlier pediments related to the ancestral Rio Grande could feasibly exist in the area surrounding San José de las Huertas. Either way, long distances would not have had to been traveled to obtain these lithic materials.

A few materials, specifically limestone and granite, were almost certainly available in local outcrops or in gravel deposits in the Las Huertas area and were likely exploited as raw material sources. Additionally, prehistoric sites located in the Las Huertas Valley probably furnished much of the obsidian and some of the Pedernal chert that occurs in the assemblage.

The comparatively low percentage of chertic materials in the Las Huertas sample indicates that flaked stone was used for more than simple fire-making activities. Had fire-making been the principal task in which lithics were employed, then few nonchertic materials would have been recovered. In fact, the lithic assemblage shows evidence that flaked stone tools functioned in a variety of tasks other than fire-making. This premise is indeed supported by the oral histories of the descendant population and will be elaborated on in the following section.

Artifact Morphology and Use

Artifact morphology can provide a clue as to how materials were reduced as well as reveal the intention of the reduction strategy. Analyses of lithic assemblages from numerous

Spanish-American sites have indicated that their inhabitants pursued a simple core-flake reduction trajectory, augmented by the manufacture of simple, small, retouched tools (Moore 2005). The assemblage from San José de las Huertas follows this pattern. As previously discussed, the few large biface fragments and flakes present in the assemblage were scavenged from prehistoric sites. Conversely, the remainder of the assemblage is indicative of a simple core-flake reduction trajectory, comprised primarily of core flakes, a few cores, and angular debris. The presence of two bipolar flakes also suggests that small cores were probably smashed to obtain usable debitage.

The purpose of a core-reduction technology is to produce sharp edges that can be used for cutting or scraping.

> This contrasts with a curated reduction strategy in which large general-purpose bifaces were produced in anticipation of need. A core-reduction trajectory is a hallmark of most sedentary groups in the [American] Southwest, including Pueblos. Curated reduction trajectories usually indicate a much greater level of annual mobility, and tend to be associated with Archaic [Period] groups (Moore 2005:6).

The low ratio of flakes to angular debris is also indicative of a simple core-flake reduction strategy. Flakes are the purposefully removed by-products of the reduction process, and tend to exhibit striking platforms as well as distinguishable ventral and dorsal surfaces. Angular debris, on the other hand, is the unplanned by-product of reduction, consisting of fragments of the cores that have shattered off as flakes were removed. Unlike biface manufacture, which is characteristic of Archaic Period lithic technologies, core-flake reduction processes produce fewer flakes for every piece of angular debris (Moore 2005:7). The core flake to angular debris ratio for the Las Huertas assemblage is 2.13:1 and is well within the range for a core-flake reduction trajectory. Moreover, this ratio is only slightly lower than the mean of 2.76

obtained by Moore in his examination of lithic assemblages from 13 other Spanish-American sites in New Mexico (Moore 2005:7).

For this study, flaked stone tools were classified as being either formal or informal. Formal tools consisted of debitage that was purposely altered through flaking in order to produce a desired shape and/or edge angle. In contrast, debitage possessing edge shapes and/or angles altered through use rather than intentional manipulation defined informal tools. The most common informal tool type identified at Las Huertas was the strike-a-light flint, totaling 36 specimens and comprising 7.3% of the lithic assemblage (see Table 4.4).

Strike-a-light flints are made from chertic debitage and were used with a *chispa*, or strike-a-light, to produce sparks that fell on tinder in the fire-making process. Essentially any piece of chert large enough in size with at least one sharp edge could be used in fire-making, and there is no evidence for the deliberate shaping of flints used for this task. As the striking of a flint against a metal *chispa* often detached small flakes, strike-a-light flints in use for fairly long periods of time were continuously being reshaped and their edge angles altered through attrition. This practice often extended the use of a strike-a-light flint by removing dulled edges until the edge angle became too steep for the further inadvertent removal of flakes. Multiple edges were usually used on strike-a-light flints, and when they were discarded they had a tendency to resemble prehistoric scrapers or spokeshaves (Moore 2005:7). However, the difference between these tools becomes obvious with an examination of their wear patterns. Strike-a-light flint edges are generally quite battered from use and often show evidence of rusted metal adhering to them.

As observed, heavily used strike-a-light flints are reshaped by attrition and the small flakes generated from the use of these artifacts are classified as strike-a-light flakes. They are

often identified by diagnostic wear patterns and the occasional occurrence of metal adhesions. The presence of both strike-a- light flints and strike-a-light flakes is clearly indicative of a historic lithic assemblage, especially as these artifacts were created by metal tool use. Nonetheless, it is interesting to note that the strike-a-light materials from Las Huertas make up a relatively small portion of the overall assemblage (7.3%) when compared to the 13 other Spanish-American sites examined by Moore; the mean for which was 19.0% (2005:8). The disparity between these figures suggests that the villagers of San José de las Huertas relied on flaked stone tools for more tasks than fire-making when compared to other Spanish-American sites in New Mexico.

Figure 4-28: Strike-a-light flints (Areas 7, 8, 1, 9: *Side 1*)

Another class of informal tools consisted of utilized debitage in the form of two pieces of Pedernal chert, two pieces of obsidian, and one piece of quartzite. The piece of quartzite exhibited rounding on its utilized edges, which generally occurs when a tool is used to scrape a fairly soft material like leather. The remaining identifiable tools revealed small use scars along an edge, indicative of either scraping or cutting. Unfortunately, the specific use of these tools remains undetermined as use-wear experimentation has demonstrated that this kind of edge wear is usually impossible to ascribe to a specific use. What can be gleaned from the use-wear patterns is that these tools were used in some type of manufacturing or maintenance task (Moore 2005:8). The presence of the utilized debitage is significant because this type of indeterminate use-wear only occurs with extended use. Thus, the occurrence of only five pieces of utilized

debitage may indicate that much of the debitage at Las Huertas was used for cutting or scraping, but was discarded before consistent edge damage associated with these functions occurred on the tools.

In contrast, few formal tools were identified in the lithic assemblage from Las Huertas. Other than the salvaged large biface fragments discussed previously, the formal tools consisted of a scraper and seven projectile points. The scraper was made from an obsidian flake and had an edge that was either intentionally altered to produce an angle suitable for scraping, or was reshaped by edge attrition through use. Although use-wear on the scraper suggests that it could have been used in wood working, it was more likely used for hide scraping (Moore 2005:8).

Figure 4-29: Obsidian scraper (Surface Collection)

Figure 4-30: Salvaged Archaic basalt projectile point base, Area 3 (top) and andesite biface, Area 1 (bottom)

Found in Area 3, a basalt projectile point was salvaged from an Archaic Period site. The other six projectile points were small and likely used by the villagers of Las Huertas. One Madera chert and two obsidian points were identified as Pueblo Corner Notched projectile points, and may have been salvaged for reuse from nearby prehistoric sites. One of these obsidian points snapped laterally, indicating that it broke during the manufacturing process or during reshaping. One

Polvedera obsidian and two Pedernal chert points may have been of local Indo-Hispano manufacture. These three projectile points were marginally flaked and badly shaped (Moore 2005:8-9). Two of the points were manufactured with side notches, while the third had corner notches.

Projectile points classified as being of Indo-Hispano manufacture tend to be crude and not well made, but functional. This is probably because Spanish colonial knappers were simply aiming for functionality, while Pueblo knappers sought both functionality and style. The differences in manufacturing techniques were likely due to the fact that projectile points served different functions in Spanish-American and Pueblo societies. For the culturally Spanish, projectile points were simply tips for their arrows, necessary as they were for hunting as well as defense. To the Pueblos, projectile points may have been imbued with deeper meaning, created to fulfill both aesthetic and functional needs (Moore 2005:9). This disparity in projectile point aesthetics does not necessarily reflect the skill of the knapper, but rather is a reflection of differing cultural parameters and needs. Indo-Hispano points tend not to be visually pleasing, while Pueblo points

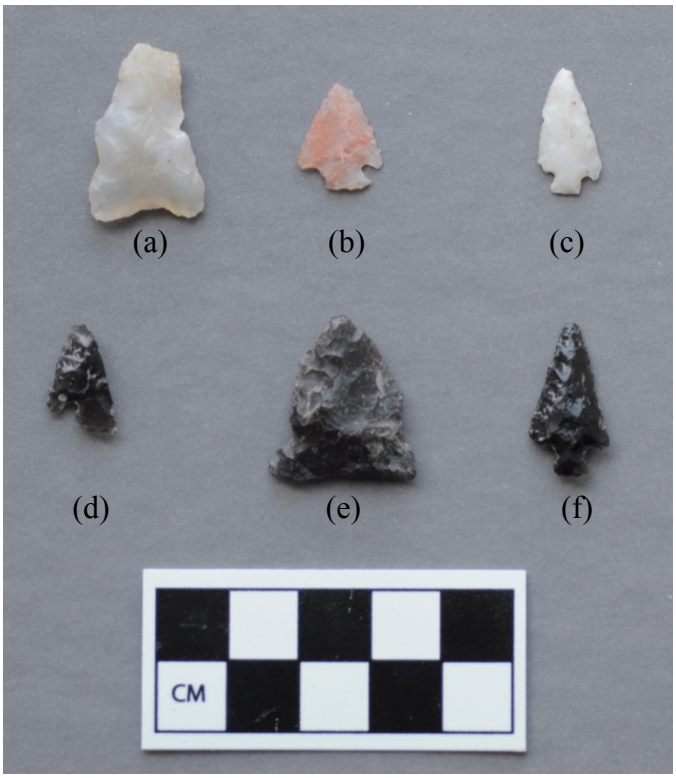


Figure 4-31: Projectile Points from Las Huertas

(a) Indo-Hispano point, Pedernal chert
(b) Pueblo Corner-Notched point, Madera chert
(c) Indo-Hispano point, Pedernal chert
(d) Pueblo Corner-Notched point, obsidian
(e) Indo-Hispano point, Polvedera chert
(f) Pueblo Corner-Notched point, obsidian

generally are. However, there are cases where Pueblo knappers were simply aiming at functionality as well, producing rather crude projectile points. As a result, it can be difficult to definitively ascribe the production of a specific projectile point to an Indo-Hispano knapper. In an effort to address this ambiguity, Moore compared the three crudely-made points from Las Huertas with other points known to be of Indo-Hispano manufacture from other Spanish-American contexts. Because the three points from Las Huertas shared similar manufacturing characteristics with the Indo-Hispano-made samples, the projectile points were almost certainly produced by Indo-Hispano knappers at Las Huertas (Moore 2005:9).

Inter-site Comparisons

On the whole, the assemblage from San José de las Huertas shares similarities with other Spanish-American lithic assemblages from New Mexico. The lithics recovered during our excavations appear to have been acquired locally with the majority of material being procured from gravel deposits associated with the ancestral Rio Grande. Additional material was collected from local outcrops near the village and in the Sandía Mountains as well as from previously occupied sites. Obsidian was the primary lithic material salvaged from archaeological sites (comprising 58% of the salvaged pieces), but small amounts of chert, andesite, massive quartz, and limestone were collected as well. Several of these were in the form of large bifaces and a few flakes struck from large bifaces that came from nearby Archaic sites. Moreover, four of the seven projectile points in the assemblage were prehistoric in origin (see Figures 4-31 and 4-32).

While the villagers of San José de las Huertas utilized a variety of lithic materials, they preferred stones with a cryptocrystalline structure (like chert) over the more coarsely-grained basalt, rhyolite, and andesite. Nonetheless, in Moore's comparison of the Las Huertas materials

with those from 13 other Spanish-American sites, the percentage of cherts in the Las Huertas assemblage is lower than most other comparable sites. As has been previously suggested, the presence of a greater number of lithic materials likely reflects a higher reliance on flaked stone tools for tasks other than just fire-making.

Kemrer and Kemrer (1979:270) observe that during the 18th century, inhabitants of Spanish Colonial period sites in the Cochiti Reservoir Basin also preferred finer-grained materials such as obsidian or chalcedony over basalt. This trend differs from the material choices made by the inhabitants of Archaic and Puebloan period sites in the same area. Table 4.7 shows the lithic materials used at four colonial period sites from the Cochiti area in addition to those from Las Huertas. Taken together, chert, chalcedony, and obsidian compose more than 70% of the assemblages. LA 12438 provides the only exception; a site that also includes a Pueblo IV component, which accounts for the higher frequency of basalt. Clearly finer-grained materials were chosen at Spanish colonial settlements. However, the quantity of each material type present appears to vary somewhat from site to site. It is likely that material choice was shaped by the kinds of tools being produced, the type of lithic sources that were locally available, and the technology utilized in the reduction process.

Table 4.7: San José de las Huertas and Four Sites from the Cochiti Reservoir Basin

Spanish Colonial Period Site	Basalt	Obsidian	Chalcedony	Chert	Other	Totals
LA 9138B	71 (17%)	34 (8%)	204 (50%)	84 (21%)	16 (4%)	409
LA 12161	148 (13%)	448 (40%)	320 (28%)	174 (15%)	47 (4%)	1137
LA 12438	11 (25%)	6 (14%)	11 (26%)	9 (21%)	6 (14%)	43
LA 12507	0	0	4 (80%)	1 (20%)	0	5
LA 25674	10 (2%)	76 (15%)	14 (3%)	285 (54%)	135 (26%)	520

* Other = quartzite, jasper, silicified wood, rhyolite and andesite (plus limestone and granite for LA 25674)

Spanish Colonial Period sites in the Cochiti Reservoir Basin also had a consistently higher percentage of tools (defined as facially retouched artifacts, utilized large and small angular debris, utilized flakes, and utilized cores) than did Archaic and prehistoric Puebloan assemblages. High tool to total number of lithic ratios may indicate that the Spanish Colonial Period inhabitants performed lithic manufacturing and use tasks on more of an ad hoc basis than did prehistoric groups (Kemrer and Kemrer 1979:273).

These sites are further characterized by smaller quantities of tool type diversity than those of Archaic and Puebloan sites. Assuming that the amount of variability in tool types is related to diversity in food procurement and subsistence related activities, Archaic, Puebloan, and Spanish assemblages are distinct from one another—each reflecting differing subsistence strategies (Kemrer and Kemrer 1979:277). As such, the small number of tools types present at Spanish-American sites indicates a limited range of subsistence activities. This is to be expected if colonial inhabitants are in fact relying on a few domestic crops and animals for their subsistence.

Simply-made, informal tools used in a relatively small number of tasks appear to be a key feature of Spanish-American settlements. Moore summarizes that,

> Spanish chipped stone technology is marked by simplicity, a lack of facially retouched tools, more bipolar reduction than on prehistoric sites, and high ratios of tools to unused debitage. This suggests an expedient technology focusing on the use of debitage as informal tools. Formal tools, or those demonstrating purposeful retouch to modify artifact shape and edge angle, should be rare or lacking, as should evidence of their manufacture (n.d.:178).

Indeed, this appears to be the case at Las Huertas as well. In his analysis of the 26 lithics from the house located just north of the walled-village, Ferg states that the

> small assemblage gives the impression of opportunistic flake production by someone not accustomed to flaking stone, or who did it only rarely and never achieved any real skill at it. It seems probable that numerous flakes were struck in no particular pattern or

> sequence, and that any which happened to end up in shapes or sizes suitable for the task at hand were used, and the rest discarded (1984:60).

He goes on to note that evidence of intentional retouching on any of the flakes is completely lacking. The use of a simple reduction technology is further substantiated by the low ratio of flakes to angular debris present in the assemblage we recovered from within the walled-village.

Excepting the lithics salvaged from Archaic and Puebloan sites, the residents of San José de las Huertas produced the tools they needed by using a simple core-flake reduction process. Three projectile points were of Indo-Hispano manufacture and are distinguished by marginal flaking, shallow notching, and a rudimentary but serviceable appearance. Strike-a-light flints were the most prevalent flaked stone tool in the assemblage (7.3%). Their use being evidenced by the presence of strike-a-light flakes (3.8% of the total assemblage). Numerous pieces of utilized debitage were also identified and suggest the use of simple unmodified tools in a variety of cutting and scraping tasks.

Figure 4-32: Projectile Points from Las Huertas (secondary side)

Intra-site Variation

As one aim of this research project is to assess differences that existed, or perhaps did not exist, between the villagers of Las Huertas, the lithic assemblage was examined for intra-site variation as well. Not surprisingly, there was no statistically significant difference in material type across the site. Presumably all the villagers had access to the same lithic material as it appears to have been procured locally and opportunistically collected. Because of the shortage of metal tools and their high price in New Mexico, stone tool production was widespread during the Spanish Colonial Period. The result was that most people were required to have some knowledge of flaked stone technology, including where and how to acquire materials for this purpose. As is reflected by the lithics themselves, it took little training to be able to shatter a rock and produce some sharp edges for use. Moreover, this was probably a familiar task for the culturally Spanish, particularly taking into consideration that they needed these tools for their fire-making kits. Thus, it is not unreasonable that those skills were extended to the production of other kinds of flaked stone implements as well.

Table 4.8: Distribution of Salvaged Lithics at San José de las Huertas

Area	Salvaged	Lithic Total	Percent
1 (house)	11	120	9%
3 (plaza)	3	73	4%
5 (wall)	1	1	100%
8 (house)	1	180	0.6%
11 (test pit)	2	2	100%
Surface Collections	6	36	17%

The distribution of salvaged, or perhaps intrusive, lithics at San José de las Huertas is more difficult to assess given the small sample size. The 24 salvaged pieces are not evenly distributed across the site as they occur in five of the eleven excavated areas (Table 4.8). For

Areas 5 and 11, the salvaged artifacts were the only lithics found. Collectively, the surface collections may also not be representative of intra-site diversity given that the samples were based on the presence of architectural remains and the density of artifact scatters visible on the ground surface. This leaves Area 1 as having the highest concentration of salvaged lithics, though the overall percentage of salvaged material is still rather small. Regardless, it does appear that this one household was slightly more engaged in collecting lithics from previously occupied sites than were the households in Areas 2 and 8. Or there are remnants of a prehistoric feature in this area of the site that was not detected during our archaeological explorations.

The most significant difference in intra-site variation is reflected by the distribution of tool types. When a chi-square test of independence was applied to the variables of excavation area and artifact morphology, the distribution failed to be random yielding a chi-square of 96.66 ($df = 130$), $p>0.05$. Areas 4, 5, 6, 7, 10 and 11 are excluded from more in depth discussion of artifact distribution as these areas only have one to three lithics and are largely features made up of wall or road segments. The exception is Area 7, a borrow pit and trash dump, that produced seven lithics. Consequently, Areas 1, 2, 3, 8, 9 and the house excavated by Ferg in 1984 are examined here. Again, the surface collections were combined for comparative purposes as they represent the site as a whole given the large area that was covered by the 13 collections (For tables and graphs of artifact type by area see Appendix C).

Table 4.9: Artifact Morphology by Excavation Area

Artifact	**Area 1** (house)	**Area 2** (house)	**Area 3** (plaza)	**Area 8** (house)	**Area 9** (smelter/ corral)	**Surface Collections**	**Ferg House**	**Totals**
Core Flakes	69	25	45	103	11	18	14	285
Biface Flakes	1		1		1	1		4
Bipolar Flakes			1	1				2
Angular Debris	39	8	19	49	9	3	9	136
Cores	3	2				1	3	9
SAL Flints	4	3	4	13	4	7		35
SAL Flakes	2	1	1	13		1		18
Bifaces	1					2		3
Projectile Points	1	1	2	1		2		7
Scrapers						1		1
Totals	120	40	73	180	25	36	26	500

Despite the relatively small size of the lithic assemblage, the greatest diversity in artifact type is in fact represented in the surface collections. It is not unexpected that the surface collections would show more diversity given that they were placed over relatively high artifact-dense areas. The domestic structures in Areas 1, 2, and 8, as well as the plaza surface unearthed in Area 3, all have similar percentages of flakes ranging from 57-64% with less comparable amounts of angular debris (20-33%). Areas 1 and 2 demonstrate the greatest amount of artifact diversity, while Areas 8 and 9 have more strike-a-light flints or flakes. Area 9 was a smelting feature before its conversion into a corral. Therefore, a higher level of strike-a-lights is anticipated as burning fuel for the smelting process is crucial. Projectile points were found in all of the household areas as well as in the plaza suggesting that some hunting and/or defensive tasks were widespread and a component of every household.

It is not surprising that the plaza would reflect a fair amount of diversity in artifact type. The plaza area would have been an ideal location to perform lithic reduction, fire-making and

other simple cutting tasks. Given the small house size of economically poor Spanish colonists and that fact that most activities, save cooking and sleeping, were performed out of doors, one would expect to find a relatively large number and range of lithic forms in Area 3.

What appears to be anomalous is the small number of lithics and lack of diversity found in the Ferg House. The paucity of material recovered during his excavations could be due to a few factors: the inhabitants cleaned the house before abandonment, depositional processes, or the residents performed lithic reduction tasks, and other stone tool related tasks, outside of and little away from the house. It is also odd that no strike-a-light flints were identified, but this may be a result of the small number of lithics recovered.

For all areas the most common artifacts were flakes, while the most common tool was a strike-a-light flint, accentuating the importance of fire-making tasks. However, the high quantity of both flakes and angular debris, some of which were utilized, emphasize the pervasiveness of basic cutting and scraping tasks in activity loci across the site. As a whole, the lithic distributions reflect various activity areas and use across the site. Tool manufacture and utilization appears to have been largely constrained to inside and around the household as well as the open plaza areas adjacent to them. This patterning reflects where different kinds of household activities took place with respect to the domestic structures and household preferences for where such tasks were to be carried out or performed.

Figure 4-33: Strike-light flints (Areas 7, 8, 1, 9: *Side 2*)

Summary

The lithics recovered from San José de las Huertas were procured locally, which meant that the villagers did not have to travel far to acquire the materials they needed. A significant portion of these materials could be found in gravel deposits along rivers and streams. Basalt outcrops near Bernalillo, local deposits of limestone and granite, and sources of massive quartz in the Sandía Mountains provided additional sources for lithic materials. There were also the remains of previously occupied sites that yielded the valued obsidian and some chert. Obsidian was the most frequently salvaged material, but small amounts of chert, andesite, massive quartz, and limestone were collected as well. Salvaged lithics were largely tools that took the form of bifaces, large bifacial flakes, and projectile points. Of course, it is possible that some of these salvaged lithics were intrusive to Las Huertas having been deposited by activities occurring in the region during an earlier era.

In addition to their procurement strategies for raw materials, the villagers of Las Huertas exploited a basic core-flake reduction technique that was supplemented by the manufacture of simple, small, retouched tools. This kind of core-reduction technology is useful for producing sharp edged artifacts that can be used for cutting or scraping. Accordingly, flakes were the predominant artifact found within the assemblage. Numerous pieces of utilized debitage were also identified and further implicate the use of simple unmodified tools in a number of cutting and scraping tasks. Most of the debitage that was used for these tasks was discarded before consistent edge damage associated with a particular function occurred on the tools.

Strike-a-light flints comprised the most common informal tool type (i.e. shaped through use rather than with intent). And formal tools that were not salvaged consisted of a scraper and three projectile points. The latter of which were characterized by marginal flaking, shallow

notching, and a rudimentary but serviceable appearance. The limited tool diversity displayed by the assemblage reflects the restricted range of subsistence activities in which the villagers were engaged. This is to be expected for populations that were largely dependent on domesticates for their food needs. Yet, when compared with several other Spanish-American sites from New Mexico, Las Huertas does differ to some extent. The lower percentage of chertic materials present in the lithic assemblage (59% when compared to an average of about 80%) and the smaller number of strike-a-light materials (both tools and flakes) indicate that the villagers relied more heavily on stone tools for more kinds of tasks than just fire-making.

Among the households themselves no significant distinction in material types could be made, implying that all villagers had access to the same locally available materials and knew where and how to procure them. However, there were some small differences among the distribution of artifact classes across the site. In general, lithics appear to have been concentrated in the household and plaza areas (Areas 1, 2, 8, and 3). The numbers of flakes in these areas were comparable with greater divergence occurring among the quantities of angular debris. There was also a bit more diversity in tool types for Areas 1 and 2, but the structure in Area 8 yielded more strike-a-lights and associated debris. Furthermore, Area 1 had a larger number of salvaged or non-contemporaneous artifacts than any other location.

Although the counts are small for a few of these categories, which can make comparisons challenging, the household collections are more homogeneous than not. Again, variability between assemblages likely stems from minor differences in use patterns of some tools, or perhaps the opportunistic collecting of salvaged materials as is supported by the finds in Area 1. Overall, it is evident that the villagers of San José de las Huertas had sufficient knowledge of lithic technology to fulfill the void that a lack of metal implements presented. In fact, it appears

that they relied on the use of simply-made stone tools to perform a variety of chores. They required these tools not just for fire-making tasks but for carrying out other tasks as well—relying more heavily on these cutting and scraping implements than did many of their Spanish-American counterparts.

Ground Stone Artifacts

In this study, ground stone is defined as any item that is primarily used to grind, abrade, polish, or impact. It is further acknowledged that the categories of flaked stone and ground stone are artificial constructs that have meaning only to archaeologists, and that several artifacts fall into an ambiguous grouping between flaked and ground stone: for example, axes that were either ground or flaked to resharpen (Adams 2002). Fifteen ground stone artifacts were recovered from our archaeological explorations at San José de las Huertas. They fell into three general categories: abrading, smoothing, and polishing tools; grinding and pulverizing tools; and percussion tools. Attributes recorded on the ground stone tools included artifact type, material type and color, condition, method of manufacture, number of used surfaces, dimensions, and evidence of burning. For detailed attributes of all artifact types see Appendix D.

Artifacts were assigned to types based on their shape and morphology, and were classified by traditional categories when possible. Further detail was recorded depending on the category of tool being examined. For instance, grain size was noted when considered relevant. Reuse, secondary use, and recycling were recorded when present, and so on. Dimensions were measured with a sliding caliper, and artifacts were examined under a binocular microscope to aid in defining material type. General wear patterns were also observed; however, an in-depth use-wear analysis was not conducted.

Abrading, Smoothing, and Polishing Tools

"From the perspective of the tool user, abrading, smoothing, and polishing are three distinct activities, each requiring a differently textured tool" (Adams 2002:77). But for the analyst, the boundaries between these tools can be unclear. In all three activities tools are used

to alter contact surfaces through mechanisms of abrasive wear, adhesive wear, and tribochemical[1] wear—although in differing degrees.

Abraders remove material from the contact surface through adhesive and abrasive mechanisms. This activity is visible macroscopically as striations on both surfaces with some actual reduction in mass of the contact surface. I use Adams definition of abraders as "handstones that have one or more rough surfaces useful for removing material from contact surfaces, thereby altering their texture or modifying their configuration" (2002:79). In contrast, smoothers rely more on adhesive and tribochemical mechanisms than on abrasive mechanisms. Less material is loosened and removed from the contact surface than with an abrader. Smoothers tend to have finer surface textures than abraders, but are courser than polishers. The use wear on smoother surfaces appears as minute striations with some spots of sheen (Adams 2002: 77-78).

As the most refined tool in the polishing process, polishers alter the surfaces of other objects through both abrasive and tribochemical mechanisms. The tribochemical interactions between polishers and their contact surfaces leave a sheen, or polish, that is visible on both the tool's surface and the surface being polished. Under the microscope, wear is visible in the form of multiple tiny striations in addition to sheen (Adams 2002). As abraders, smoothers, and polishers are part of the repertoire of tools utilized in the continuum of the polishing task, it is sometimes difficult to draw distinction between the various categories at the macroscopic level. Such ambiguity was manifest in the small assemblage from the research site.

Two polishing stones and one abrader, which probably functioned more as a smoother, make up the abrading, smoothing, and polishing tools recovered from within the walled-village. All three artifacts were found in varying states of brokenness. The polishing stone recovered

[1] Tribochemical wear is an interactive process that involves adhesive, abrasive, and fatigue wear, which create an environment for chemical reactions. These interactions result in by-products apparent on stone surfaces as sheen, sometimes referred to as polish by lithic analysts (Adams 2002:273).

from Area 1 was made from a quartzite cobble by grinding one horizontal side flat to create a polishing surface. Although the polisher is cracked and fragmentary due to being burnt, its general size and shape indicate that it may have been used as a floor polisher.

The second polishing stone and smoother were uncovered in Area 8. The smoother was made from a fine-grained sandstone cobble in which one end was shaped by chipping and the others by grinding. Although partially broken, the rectangular shape and square cross-section of the smoother were clearly apparent. Two adjacent surfaces have been ground smooth from use. The polishing stone was largely intact except for some spalling on its surface. This expedient polisher was likely modified by abrasion from a quartzite stream pebble. Evidence of some polish and multiple striations on the two utilized surfaces of the polisher suggest that it could have been used on pottery, stone, wood or bone. Only microscopic use-wear analysis can determine its exact use.

The house excavated by Ferg yielded one polishing stone made from a quartzite pebble, which he believes functioned primarily as a pottery polisher. A broken tabular sandstone object modified through chipping and grinding was also found near the house. Ferg suggests this tabular stone was used as a whetstone (Ferg 1984:62).

Grinding and Pulverizing Tools

Grinding and pulverizing tools employ the mechanisms of fatigue wear and abrasion more than those of adhesion or tribochemical reactions. Striations on the tools themselves are caused by the reciprocal or circular movement of one surface against another, while any intermediate substance between the two surfaces becomes ground, pulverized, or crushed. This

functional category includes manos, metates, mortars, pitted and cupped stones, pestles, handstones, netherstones, grinding slabs, lapstones, and palettes (Adams 2002:98).

Ten manos and one metate fragment were the only kinds of grinding and pulverizing tools collected from the excavations at San José de las Huertas. Manos and metates are two components of food-processing equipment, and one cannot be used without the other to accomplish this task. The manner of use and maintenance determine the fatigue wear on the utilized surfaces as well as the final shape of the tools (Adams 2002). Little information was discernible from the one metate found because it is fragmentary and does not appear to retain an original edge. The metate was made of vesicular basalt and the portion of the grinding surface that remains suggests that is was likely of flat/concave design. Flat/concave metates are used with manos shorter than the metate width, and although they may start with flat surfaces, extensive use can produce deep depressions within them. This form differs from flat metates that have flat surfaces due to being used with manos as long as the metates are wide, or trough metates that have intentionally manufactured rectangular basins (Adams 2002). However, metates of both flat/concave and flat design have been referred to as slab metates in the literature on the American Southwest.

Figure 4-34: Metate fragment (side view)

Because manos and metates are used together, and the use wear on the surface of one tool reflects that of the other, Adams advocates a technological classification of manos (2002:100). The utility of this approach is further recommended as it is not uncommon for a single metate to have multiple manos or vice versa. Such a classificatory scheme would only be possible through the analysis of wear patterns on the grinding surfaces of manos. Given that a microscopic analysis of use wear was not conducted on the manos in this study, a more traditional approach to classification was employed. Some of the attributes recorded for the manos are listed in Table 4.10.

Figure 4-35: Metate fragment (top view)

Table 4.10: Mano Attributes

Sample #	1	2	3	4	5	6	7	8	9	10
Area	1	2	7	8	8	9	Surface Collection 6	Surface Collection 11	Surface Collection	Surface Collection
North	885	918	972.5	853	854	935	1000	840	arroyo	1001.27
East	2893	2915.5	2967	2952	2950	3042	3000	3000		2988.8
Level	surface	2	3	3	1	surface	surface	surface	surface	surface
Artifact type	likely two-hand mano	likely one-hand mano	two-hand mano	one-hand mano	one-hand mano	two-hand mano	two-hand mano	two-hand mano	likely one-hand mano	one-hand mano
Broken?	yes	yes	yes	yes, chipped	no	yes	yes	yes	yes	yes
Length (cm)	7.5	5	10.6	11	11.5	7.5	10.5	5.8	5.5	9.6
Width (cm)	6.5	8	9.8	9	9	11	10.3	10.2	9.1	5
Maximum thickness (cm)	2.3	5.3	3.8	4.2	4.1	3.2	2.6	3.3	3.3	4.9
Minimum thickness (cm)	1.8	3.2	1.2	3.7	3.1	2.2	1.5	1.4	2.3	3.8
Material	quartzite	vesicular basalt	quartzite	quartzite	quartzite	vesicular basalt	vesicular basalt	vesicular basalt	vesicular basalt	quartzite
Previous form	cobble	unknown	cobble	cobble	cobble	unknown	unknown	unknown; natural outcrop	unknown	cobble
Plan view	irregular	broken/ indeterminate	trapezoid	oval	oval	broken/ indeterminate	broken/ indeterminate	rectangular	oval	oval
Cross-section	unknown	ovoid	triangular	ovoid	ovoid	discoidal	discoidal	wedge	ovoid	ovoid
Longitudinal section	unknown	likely oval	oval	oval	oval	oval	oval	oval	oval	oval
Number of finger grooves	none	none	none	one	none	none	none	none	none	none
Number of primary use surfaces	one	two	two	three	two	two	two	two	two	two

It is interesting to note that eight of the ten manos recovered from the site suffered significant breakage. One of the two manos found in Area 8 remained intact, while the other was only slightly damaged by a chip on one end. Half of the manos were manufactured from quartzite cobbles that were likely obtained from gravel deposits of the ancestral Rio Grande. And the remaining were made of vesicular basalt, the source of which is unknown. All the manos appear to have been strategically designed, being pecked and ground into specific shapes. The precise method of manufacture, however, was somewhat obscured by the fact that the manos have been shaped by heavy use and most of the utilized surfaces are heavily abraded. Only one of the manos shows any evidence of a comfort feature, such as finger grooves. Five of the manos were classified as being of the one-hand variety, whereas the other five were assessed as being the two-hand type. Only two of the manos had other uses other than grinding associated with them. After breaking, the mano found in Area 1 was used as a lapstone. Moreover, Sample #4 from Area 8 was the only mano that showed signs of three utilized surfaces. In addition to the two faces used for grinding, the edge of this mano displays evidence of having been used as an abrader as well.

A single sandstone mano found on the floor of the house excavated by Ferg comprised the entirety of the grinding and pulverizing tools recovered during his research at the site. This two-handed mano was slightly shaped by pecking, was bifacial, and could have been used in either a slab or trough metate (Ferg 1984:60).

Percussion Tools

The purpose of percussion tools is to chip or smash away the unwanted parts of other items. The forceful strokes used with percussion tools cause impact fractures that damage

surfaces through the mechanisms of fatigue wear. Choppers are pebbles, cobbles, or small rocks that have been modified through flaking to create an edge. The sharp edge distinguishes a chopper from a pecking stone or hammerstone (Adams 2002). A fragment of one chopper, measuring 6 cm in length, was found in Area 3. The tool was manufactured from a naturally occurring basalt cobble and was flaked to a sharp edge on one end. Given the tool size and lack of modification, other than the sharpened edge, the chopper appears to have served as an expedient, light-weight, chopping tool that was likely used on wood. Microscopic wear analysis of the utilized edge would determine the precise function of the tool.

The only other percussion tools associated with Las Huertas include two pecking stones found on the floor of the house excavated by Ferg. The stones were heavily battered and appear to have been used to shape metates, manos, and axes. Made from chalcedony stream cobbles, flake scares on the tools suggest that they may have initially served as cores (Ferg 1984:62).

Other stone objects uncovered by Ferg include two stone discs, a jar cover, a pot support, and possible *comal*. The jar cover was made from an unshaped piece of granite that was found partially atop the buried, nested jar feature unearthed in the house he excavated north of the village's defensive walls. The pot support consisted of a piece of fire-reddened sandstone that was discovered on top of the fire platform in the kitchen of the house. A sandstone stone slab that had been roughly chipped to shape and burned on one face was unearthed in the kitchen. Given its location and burnt surface, Ferg proposes that this stone may have served as a cooking slab, or *comal* (Ferg 1984:62-64).

Perhaps the most intriguing objects from this set of miscellaneous stone artifacts are the two stone discs. Chipped into shape from tabular stone, a 9-cm disc of sandstone and a 10-cm

oval of schist were found in feature fill. Ferg suggests that these thin (no more than two cm thick) disks could have been used in a game called *Chueco* (Ferg 1984:62). Somewhat resembling horseshoes, this gambling game was played by burying a long, flat, bone in a stretch of level ground. The players stood about fifteen from the bone from where they tossed *tejas* (tiles) at it. *Tejas* were small stones "about the shape and size of a silver dollar. If the bottom of the arroyos did not yield up such stones, they could be made by grinding them with harder stones into the desired size and shape" (Robolledo and Márquez 2000:185).

Summary

The ground stone tools recovered from the excavations at San José de las Huertas reflect the subsistence and maintenance practices common to Spanish colonial villagers in the 18th and early 19th centuries. Grinding activities, presumably associated with the processing of vegetal materials, are clearly reflected by the manos and metate fragment recovered from the site. The relatively small number of grinding artifacts associated with a village that boasted nearly 300 people at the turn of the 19th century may seem surprising, but it is similar to those found at other Spanish Colonial Era sites.

Researchers of the Cochiti Reservoir Survey observed that grinding artifacts were not present on all sites, particularly those of Puebloan and Spanish Colonial Periods. As it seems unlikely that grinding activities were absent from these sites, the researchers postulate that grinding artifacts, chiefly metates, were purposely removed by site occupants and constitute site abandonment-related behavior. The presence of only manos at some Spanish-American sites, the occurrence of metate fragments at others, and the discovery of an empty grinding bin at yet

another, provide evidence to support this hypothesis (Kemrer and Kemrer 1979-:277). Thus, the grinding assemblage from Las Huertas suggests this same kind of abandonment behavior.

As noted above, all but one of the grinding artifacts were found broken. Many of the manos also had heavily abraded surfaces indicating that these "worn-out" tools were discarded upon leaving the village. Given that the abandonment of San José de las Huertas was planned, the occupants would have had time to bring the items they wished to keep with them. Furthermore, access to animal-drawn transportation during the Spanish Colonial Period would have facilitated the removal of grinding tools, such as weighty metates.

Similar trends can be seen among the other categories of ground stone artifacts as well, most of which reflect maintenance activities. The chopper was probably used for light-weight woodcutting and the two heavily-battered pecking stones were used in the maintenance and shaping of grinding tools. The floor polisher, polishing stones, smoother, and whetstone would all have been used in the plastering of floors, sharpening of metal objects, and the shaping of wood, bone, or stone implements. It is important to note that many of these tools were alson found either damaged or heavily-used.

Another behavioral pattern revealed by the ground stone assemblage is tool reuse and opportunistic tool production. For example, the Sample #1 mano was put to use as an abrader after it broke, while the Sample #4 mano appeared to function as both an abrader and a mano. Reuse is also suggested by the flake scars on the pecking stones, which appear to initially have served as cores. Undoubtedly some of the polishing stones were chosen in part for their natural size and shape and were further modified through use. However, the expedient use of tools is perhaps most evident in the jar top, pot support, and the *comal* found by Ferg. Both the jar top and pot support were unshaped and probably chosen for their naturally occurring attributes such

as size, shape, and material. Given the ambiguity in form and slight shaping of the *comal*, it apparently served as a makeshift utensil. As these artifacts were expedient and required little effort to create, it is not surprising that they were intentionally left behind by the residents.

The collection of folklore and stories recorded by Lou Sage Batchen from the descendents of the San Antonio de las Huertas Land Grant communities recount the use of both flaked and ground stone implements. The oral histories reflect community and family memories ranging from the first Spanish colonial occupation of the Las Huertas area in the 1750s to the first decades of the 20th century. Many accounts mention the use of both flaked and ground stone tools in daily activities. Ground stone axes appear to have been in common use. Fastened to a wooden handle with cured animal skin, a small axe head was "about seven inches long, and some three inches wide, and where the handle was tied on, it measured between two and three inches in thickness and diminished in thickness from that point to the end where it was ground to a sharp edge with sand" (Robolledo and Márquez 2000:425). An efficient tool in skilled hands, stone axes were used for felling trees, hewing timbers into boards, making a variety of wooden tools, shaping wood for musical instruments (like a guitar), and for working the timber needed in a variety of constructions (Robolledo and Márquez 2000:302, 329, 344, 366, 375, 425).

Flint rocks (or strike-a-lights) were always carried in order to build fires in the old days. And, as there were no scissors and few hunting knives in the village, "sharp stones" were used to process and cut deer skins for clothing. Tools of "flint rock" also supplemented the scarce metal implements available in the tasks that required more delicate woodworking skills, such as the decorative elements applied to chests and boxes. It also took skilled hands to shape and dress the grinding stones, like millstones and metates, that were so important in food production (Robolledo and Márquez 2000:329, 346, 353, 376). Grinding corn into meal and wheat into

flour was an arduous duty for the women of Las Huertas. "Down on their knees they were at work with their grinding stones, the metate and mano, at all hours and for long hours at a time, that their families might have their daily bread. There was constant need of flour…" (Robolledo and Márquez 2000:346-347). During times of celebration, like the fiesta honoring the village's patron saint or Christmas, the demand for flour increased in order to prepare the foods needed to commemorate these festive events.

The lack of firearms and their unreliability caused bows and arrows to be more frequently used in hunting and defense. Indeed, these weapons are mentioned in the accounts of raids, acts of retribution, and hunting stories. More specifically, informants related that shepherds always carried bows and arrows for protection against hostile Indians and bears. While the material used for arrowheads is only occasionally specified, I believe it is safe to assume that many points were constructed of chipped stone as well as whatever scrap metal could be acquired. For example, when Juan of Tecolote was summed to appear in Santa Fe on state business, he brought his bow and a quiver of obsidian-tipped arrows with him in case of an emergency (Robolledo and Márquez 2000:302, 385, 407). A number of the remembrances of those interviewed by Batchen indicate that several stone implements remained in use well into the 1870s in the isolated communities on the land grant. In addition to attesting to the accuracy of these accounts of the past, the flaked and ground stone assemblages from Las Huertas provide material evidence of their necessity in the subsistence activities of the villagers.

Faunal Remains

The examination of variability within faunal assemblages is fundamental in determining subsistence activities at archaeological sites. Information regarding species exploited, butchering practices, and the processing and consumption of faunal resources can only be obtained through the analysis of a site's faunal assemblage. Given sufficient information, inferences can be made about the reliance on animal domestication, trade behavior, and the production of exportable goods, such as wool. The primary goals of this analysis are to establish what kinds of animals were used by the villagers at San José de las Huertas and, to a lesser degree, determine how these animals were processed. The choices made about what animals to raise, which to hunt, and how to process and dispose of them were informed by a Spanish cultural template that had been adapted to the New World (Van Ness 1991) as well as by the specific challenges facing the villagers inhabiting their particular corner of the imperial borderlands. As such, an examination of the faunal assemblage will help to shed light on the nature of the settlement and its subsistence practices.

Before examining the information yielded by the faunal remains recovered from San José de las Huertas, it is useful to present some general limitations of the data. First, the descriptions of this relatively small assemblage are based on several fragmentary samples. Second, there is evidence of attrition given the friable nature of many of the specimens. Lastly, a small percentage (5%) of the assemblage has been burned and/or damaged by carnivores.

Methods

The identification of bone to species and element was conducted by Phoebe Anderson of the University of Washington under the supervision of Professor Donald Grayson. The faunal

material was initially sorted into two categories, potentially identifiable and unidentifiable remains. Each potentially identifiable bone was labeled with a unique catalog number on acid free paper. The skeletal elements in this subset of the assemblage were then identified to the finest taxonomic level possible. Taxonomic identification followed standard procedures and relied upon the comparative collections of The Burke Museum of Natural History and Culture at the University of Washington as well as those of Professor Grayson (Anderson 2006).

The majority of the faunal material was initially identified as artiodactyla. Where classification to genus or species was not possible, broad non-taxonomic categories were used by Anderson to classify the specimens. Taphonomic processes made the identification of several specimens through comparative methods impossible, but they were distinguishable by size class. Despite their broadness, these categories do carry general information about the body size of the species exploited.

Drawing on the modern faunal biogeography of the Southwest, it was determined that the wild artiodactyla in the region have skeletons significantly larger than the material classified as small artiodactyla. Thus, the small artiodactyla remains could only be Caprinae, or domestic sheep or goat (Anderson 2006). The category medium artiodactyla signified any artiodactyla most likely ranging in size from a pronghorn to the smaller deer species. Large artiodactyla was used to classify any artiodactyla that presumably ranged in size from an elk to a bison.

Distinguishing between domestic sheep and goat at the skeletal level is notoriously difficult, especially for the varieties found in the New World (Akins 2001:112). While analysts have generally been unable to distinguish between the two, some studies have identified distinguishable morphological differences on a few post-cranial elements and teeth (Halstread et al. 2002). Unfortunately, insufficient goat and sheep comparative material was available to the

analyst to identify the post-cranial material to the species level. Regardless, two teeth were independently identified by both Anderson and Grayson as belonging to the species *Capra hircus*, or domestic goat (Anderson 2006).

Data

Table 4.11 lists the results of the faunal analysis. Of the 513 specimens that were collected from the site during our 2002-2004 excavations, 22% were unidentifiable as to taxa. Presumably this was a result of decomposition and processing practices that rendered fragmentary portions. Nevertheless, a significant part (78%) of the assemblage was identified to some categorical level. Most broadly, 15% of the total assemblage was recognized as bone belonging to variably sized artiodactyla. Additionally, 1.3% was identified to the level of rodentia and a single specimen was found to have originated from some kind of bird. Domestic animals comprised 77% of the number of identified species, while nondomestic species accounted for a mere 3%. The domesticate group consisted of 79% Caprinae remains. As sheep and goats make up a significant portion of the assemblage, data on the element distribution of Caprinae can be found in Appendix E. In general, the most commonly distributed Caprinae elements for all areas of the site corresponded to specimens that have higher frequencies in the body, or were identifiable even when highly fragmented (Anderson 2006). Consequently, teeth, vertebrae, rib and foot bones have the highest rates of recurrence within the assemblage.

While a study of the specimens' age at the time of death was not explicitly conducted, 12 unfused elements were identified indicating some minor utilization of juvenile animals (Anderson 2006). As a whole, there was little evidence of modification to the bones. Burning was observed on 22 specimens and carnivore damage occurred on only 5 specimens. Evidence

Table 4.11: Number of Identified Specimens by Taxon and Area

Taxon	**Area 1** (house)	**Area 2** (house)	**Area 3** (plaza)	**Area 4** (road)	**Area 5** (wall)	**Area 7** (borrow pit)	**Area 8** (house)	**Area 9** (corral)	**Area 10** (test)	**Area 11** (test)	**Surface Collections and Cores**	**Totals**	**Percents**
Bos/Bison	6	4	2	1	1	9	35	6	1		1	66	12.9
Artiodactyla sp.	8	1	1	2	2	3	45	3				65	12.7
Large *Artiodactyla*	2		2		1		5					10	1.9
Medium *Artiodactyla*	1					1	1					3	0.6
Caprinae	38	5	17	2	7	21	127	18	5		3	243	47.4
Odocoileus sp. (likely Mule Deer)							4					4	0.8
Aves							1					1	0.2
Rodentia	1						6					7	1.3
Unknown	14	1	2	3	8	5	59	14	3	3	2	114	22.2
Eggshell	present	present					present	present		present		5 of 11	N/A
Total	70	11	24	8	19	39	283	41	9	3	6	513	
Percent	13.6	2.1	4.7	1.6	3.7	7.6	55.2	8.0	1.7	0.6	1.2		100.0

of human processing was also rare with one bone showing evidence of being cut, and another that appears to have had a hole forties drilled or punched through it. Although the resolution of the data and evidence of modification to the faunal assemblage is limited, these remains can inform us as to what the villagers were consuming at San José de las Huertas.

Figure 4-36: Modified Bone Fragment (Area 8)

The villagers clearly relied on domesticated animals, particularly sheep and goats. They are by far the most numerous of the identified taxa in the assemblage. This is not surprising as sheep were the main stock animal during the Spanish Colonial Period. Sheep also served as the medium of exchange in an area that was continuously short of capital (Frank 2000). In 1803, Governor Fernando de Chacón reported to his superior in Chihuahua that sheep were the most abundant domestic animal, oxen were sufficient for farming, pigs were scarce, and Indian raids discouraged the breeding of horses and mules (Baxter 1987:61, 69).

On the whole, livestock was scarce into the early 18th century but increased slowly as the century progressed. In the 1740s herds increased significantly as the *partido* system took hold; and by 1750 sheep ranching was New Mexico's most important industry (Akins 2001; Frank 2000). A report from 1827 states that the villa of Albuquerque, its *alcaldías* (mayoralties), and pueblos had 2,550 head of cattle, 155,000 sheep and goats, 192 horses, 868 mules, 105 mares, and 1,165 *caballadas* (Akins 2001:110).

Historical records indicate that sheep, and perhaps to a lesser degree, goats were the main livestock raised during the Spanish Colonial and subsequent periods. The hearty churro (or Churra) was a popular breed with Spanish settlers in New Mexico, despite its lacking the long staple wool that was suited to the hand-processing techniques frequently used by the colonists. Originally common in southern Spain, the churro adapted quickly to the semiarid pastures of the Southwest given its ability to substitute dew and succulent plants for water. This breed is also better able to withstand droughts and drives than cattle. Moreover, Merino rams were not imported into the area until about 1868 suggesting that the sheep reared during the Spanish Colonial Period must have come from churro stock (Akins 2001:109; Baxter 1987:20, 149).

Though sheep may have been preferred for their wool, there were some distinct advantages to raising goats. Female goats produce large amounts of milk, which could be used in the making of the beverage *atole* as well as processed into cheese and butter. Male goats are better flock leaders than rams. Lead goats also warn of approaching predators, respond better to herders and dogs, and tend not to lead the flock into danger. Furthermore, goats were used to thresh grain and beans and would even clear plots of land of woody plants (Scurlock 1998:8-9).

Given these traits, the villagers of Las Huertas may have preferred to focus on raising goats over sheep. Indeed, oral historical narratives tend to mention goats more frequently. And when sheep are referred to, it is always in conjunction with goats. Informants tell of the spinning of goat's wool, but using sheepskins for clothing, bags, and in small squares upon which to sit (Rebolledo and Márquez 2000). Moreover, while interviewing a member of the San Antonio de las Huertas Land Grant Association, Nan Rothschild and I were shown an old photograph of a summer camp in the Sandía Mountains in which nearly all the livestock in front of the small wooden cabin were goats.

After Caprinae, the next largest analytical category was artiodactlya which comprised 20% of the number of identified species. Although 13 specimens were further classified to size (10 large and 3 medium), this grouping could potentially span a number of both domestic and wild species including cow, oxen, horse, mule, bison and a variety of deer. Oral narratives and archaeological and historical data confirm that these animals were in the area during the colonial period, although it is not clear from the faunal evidence which of these would have been used by the villagers of Las Huertas.

Bos/Bison also comprised a significant portion of the faunal assemblage as a whole. While it is uncertain from the data whether or not these specimens represent cattle or bison, that both taxa were present is quite probable. It is likely that the villagers had a few cows or oxen to carry out basic farming activities such as plowing, the pulling of carts, and the transporting of produce. Besides, cattle became increasingly more valuable over the colonial period and by 1800 they had become an essential food source in New Mexico (Baydo 1971:32).

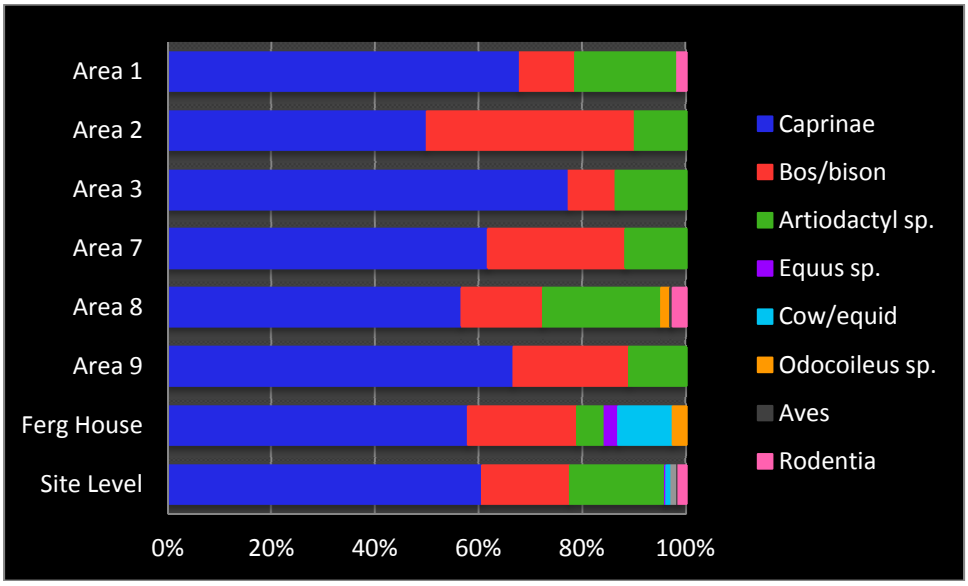
Access to bison would have been mainly through trade with nomadic hunting groups or through organized hunting and trading parties that took some men out of the village to trade fairs in the north or even eastward onto the Plains (Rebolledo and Márquez 2000). Accounts exist of *vecinos* going on short hunts after crops were planted and again after they were harvested. Lances, arrows, and rifles were used to hunt bulls in the early summer and cows in the fall. Occasionally women and children accompanied the men, as many hands were required to skin and prepare the jerked meat and process the hides. *Ciboleros* (buffalo hunters) were treated with great respect, their exploits celebrated, and their return home honored with a *fandango* (Akins 2001:112, Kenner 1969:102-105).

While the oral narratives from Placitas describe villagers using buffalo hides in variety of ways—for men's clothing, *tewas* (or moccasins), harnesses for oxen teams, rugs, and for the ball in the sport called La Pelota—the actual hunting of buffalo is infrequently described (Rebolledo and Márquez 2000). José Librado Arón Gurulé (a village elder in the late 1930s) explains that few buffalo hunts occurred after 1865, but that there were many prior to that date. Men from Las Huertas, and later Placitas, comprised just one portion of a hunting party that included men from several nearby villages. The hunting party would set out for Llano Estacada, which extended east of the Pecos River to some point in Texas. These expeditions usually employed oxen and carts and lasted three months. Bison were butchered and hides prepared at the kill sites. The meat was cut into small strips and dried for easy transportation back home (Rebolledo and Márquez 2000:189). Other storytellers only speak broadly about hunting "wild animals" and not of trips to acquire buffalo, which were likely to have been memorable.

Given that bison processing occurred at the kill sites, one would expect few remains to be present within the village's assemblage. And despite their purported frequency prior to 1865, hunting expeditions were likely annual or semi-annual events that engaged a relatively small portion of the village population as villagers would have had to stay home to protect herds and tend crops. As such, it is likely that hunting trips aimed at only acquiring buffalo would have been uncommon for the majority of villagers living at Las Huertas.

Variation in the distribution of faunal remains between households and other features yielding more sizeable assemblages can be seen in the chart below. House Areas 1, 2, 8 and the Ferg House are shown in comparison with plaza Area 3, corral Area 9, and the borrow pit feature in Area 7.

Figure 4-37: Taxa by Excavation Area



Not surprisingly, all the areas are dominated (50% or more) by sheep and goat remains. There is some variability between areas in the quantity of remains classified as *Bos/bison* and artiodactyla. Areas 1, 3, and 8 contain 5-7% more artiodactyla specimens than they do *Bos/bison*, while Areas 7, 9 and the Ferg House have 11-16% more *Bos/bison*. Regardless of this variation, it must be remembered that the two categories are not mutually exclusive. As such, the relatively small variability that does occur may reflect differing disposal practices and variations in preservation rather than any real differences in consumption behaviors between households.

The anomaly lies in the distribution of species utilized in Area 2. Data from the graph suggests that this household consumed a much higher amount of *Bos/bison* than the rest of the site. However, this inference is greatly suspect given that the proportions are the result of the extremely small sample size for this house (NISP=10). Nonetheless, artiodactyla and *Bos/bison* account for the greatest number of specimens in all areas (35% of animals consumed at the village level) after Caprinae. For the villagers of Las Huertas, this suggests that relatively large

livestock (cattle) and wild species (probably in the form of deer and bison) were consumed about half as frequently as sheep and goats.

Interestingly, the only remains positively identified as belonging to deer consisted solely of antler fragments. A similar pattern was also found in the Spanish Colonial component of the La Puente site (Moore et al. 2004:87). Although the purpose of these fragments is not known, as they were not analyzed for use-wear patterns, it is possible that the antlers showed little modification because they were being cached for employment in a number of future tasks. Potential uses for the antler pieces could have included percussive hammers, spinning and weaving tools, awls, needles and other implements used in the processing of animal hides for clothing.

Virtually no bird remains were recovered from our excavations. This may be the result of poor preservation conditions, or perhaps a consequence of the villagers processing and discarding of bird remains in a manner differently from that of other kinds of animal remains. Despite the relative absence of bird bones, eggshell was found to be present in five of the eleven excavated areas. It was found within the three domestic structures as well as in the corral and Area 11. The eggshell was consistent with that belonging to chickens. Archival evidence for chickens is rare, as they were seldom mentioned in the documentary record. Nevertheless, they were introduced to New Mexico during the early colonial period through the mission supply caravans (Trigg 2005:100). Oral historical accounts reflect the longevity of chickens in New Mexico as informant José Librado Arón Gurulé explains that chickens have been in the Las Huertas area as long as people have (Rebolledo and Márquez 2000:174).

Other infrequent taxa were that of rodentia and *Equus sp*. Rodent remains were recovered in Areas 1 and 8, and are intrusive. During excavations abandoned rodent burrows

were discovered to be intruding upon the archaeological deposits in these areas. Remains belonging to the species *Equus* were only found in the Ferg house and may be suggestive of horse. Horses arrived with the Spaniards but were so attractive to raiding Indians that breeding was difficult. Attacks by Navajos in the Las Huertas area are documented from the mid-1700s until at least 1870 (Rebolledo and Márquez 2000; Scurlock 1997:45-49).

Though highly prized, it is unlikely that horses were very common among the villagers of San José de las Huertas, especially as only wealthy men possessed large numbers of them. This is partly illustrated by the 1815-1817 militia muster rolls for Las Huertas. The record lists 22 men as having 34 horses between them in a village of nearly 300 people (SANM II 19:1034). The numbers appear to worsen later in the century. Village elders recount that in 1863 there were only five good horses in Placitas and these were corralled within the village when they were not being used as they could have been stolen by the Navajo (Rebolledo and Márquez 2000:299, 431). Indeed, stolen horses were almost always tracked down in an attempt to get them back.

The perceived drop in horse population might in part be due to the likelihood that the population of Placitas in the 1860s was considerably smaller than that of Las Huertas prior to abandonment. Moreover, one is uncertain as to what constituted "a good horse" in the minds of the village elders, perhaps suggesting that there were other horses that were not as useful, or "good." Moreover, such a statement does not account for the mules that may have been kept by the villagers of Placitas during the mid-19th century.

Another possibility is that the *Equus* remains do in fact represent the use of mules at Las Huertas, since they were the most common form of transportation in 18th-century New Mexico. Mules were typically not used as draft animals, but as beasts of burden in heavy pack trains, for

hauling goods along the Camino Real, and in carrying ore out of mines. Some *ciboleros* even rode them during buffalo hunts when horses were in short supply (Kenner 1969:105). In the 1700s and early 1800s, the demand for mules became so great that haciendas began raising mules and importing animals from Spain and the United States to increase their numbers.

It is doubtful that the *Equus* remains indicate the presence of donkey or burro as this animal came into use relatively late in New Mexico, probably not before 1830 (Akins 2001:113). Again, the militia muster rolls provide some insight as to the animals present at the village. Among the 23 mounted men of Las Huertas, three villagers owned a total of three mules (SANM II, Roll 10, Frames 188-189). Given that mules were typically used as pack animals in caravan settings, were present only in small numbers at Las Huertas, and that there is a longer history of more intensive horse use on the grant's lands, the *Equus* remains discovered by Ferg mostly likely came from a horse.

The greatest diversity of species occurred in Area 8 and the house excavated by Ferg. This is likely due to better preservation in these areas of the site and the fact that they represent household contexts. As a household consists of multiple members and reflects a number of activities, one would expect these contexts to exhibit greater species diversity than other kinds of deposits. In contrast, the faunal remains associated with other areas, such as the borrow pit in Area 7 and the corral of Area 9, reflect more restricted depositional episodes. General taphonomic differences may reflect processing and depositing patterns as larger pieces were discarded away from houses and higher traffic areas such as the plaza. Furthermore, oral historical accounts suggest that some butchering was carried out away from the village with animals being roughly dressed after a kill was made in the course of a hunt or with the

consumption of sheep and goats during herding duties or while in pursuit of raiding Navajo (Rebolledo and Márquez 2000).

Summary

On the whole, the faunal remains found at San José de las Huertas are not so different from those found at other sites dating to the Spanish Colonial and early Mexican Periods. Due to varying degrees in the resolution of the datasets found in the examined publications, the greatest utility was in comparing species lists from the different sites. A comparison of the species recovered from Las Huertas with seven other Spanish colonial sites can be seen in Table 3 of Appendix E. Regardless of their variances, some generalizations could be made from these datasets. Firstly, the occupants of all the sites relied on domesticated animals, principally sheep and goats. Over half the identified specimens in the assemblages compared were from medium to large-sized mammals or ovicaprids, suggesting that inhabitants of colonial period sites preferred animals of larger body size when available. The consumption of domesticated animals was supplemented with wild species that were locally available. Thus, the number of wild species found at a particular site was somewhat dependent on the environment in which the inhabitants found themselves. Although for at least one site, some individuals were obtaining animal resources (bison, in this case) through trade (Sunseri 2009:228).

As the table indicates, unspecified species of bird were found at all sites while deer, rabbit, pig, and *Equus sp.* occurred on half of the sites compared (Akins 2001; Binford 1979; Moore et al. 2004; Sunseri 2009). Where butchering patterns were observed, saw cut meat is absent. Instead, cuts were made with axes, cleavers, or knives (either of stone or metal) in order to produce various cuts or stew-sized chunks. Butchering practices appeared to be congruent

with home butchering (primarily of sheep and goats) with larger cuts of meat, from cattle for example, likely being shared across households.

While little evidence of bone modification was found in this analytical study that could provide information on butchering and consumption patterns of the villagers of San José de las Huertas, I imagine that the above trends found at other Spanish colonial sites would not be inconsistent with the practices that occurred at Las Huertas. As the lithic assemblage has demonstrated, stone implements were used for a variety of cutting and scraping tasks. This is reaffirmed by the oral historical records in which descendants recount the processing and cutting of both domestic and wild animal hides with stone tools as well as the occasional hunting knife. Wild game, particularly large-sized game like deer and bear, were partially butchered at the kill site since these animals would have been too cumbersome for one or a couple of hunters to carry home alone. Instances of hunters sharing cuts of meat and other animal parts from their kills with women in the village can be also found in the oral histories (Rebolledo and Márquez 2000: 229, 329, 353, 409, 434). In sum, the people of Las Huertas relied chiefly on domestic animals, mostly sheep and goat with the consumption of some cattle. Wild game would have helped to supplement their diet, and large animals were likely shared across multiple households.

Metal and Smelting Materials

Metal fragments, artifacts, and the by-products of metal-working are illustrative of several kinds of socio-economic behaviors in which the villagers of San José de las Huertas were occupied. These materials indicate site level action as well as some specialization of tasks among the villagers themselves. While the use of metal objects and the procurement of this resource has a long history in New Mexico, its use tended to be parsimonious given its scarcity in most segments of colonial society.

During its initial conquest and colonization, New Mexico was supplied by mission-controlled caravans from New Spain. After the Pueblo Revolt, the province continued to be supplied by caravan, though now they were controlled by merchants instead of the church. More precisely, it was the merchants of Chihuahua that had gained control of the supply system by the mid-18th century (Moorhead 1958). The merchants overcharged for their goods and underpaid for the items they purchased from New Mexican producers. Consequently, New Mexico was poorly supplied with goods sold at exorbitant rates. This problem was partly remedied by trading with local Indians for some essentials such as pottery and food (Moore et al. 2004:182).

Metal, especially iron, continued to remain in short supply. Although some iron was smelted in Mexico, only insignificant amounts were produced. In addition, royal policy forbade the production of iron in the New World in order to protect the monopoly enjoyed by the city of Vizcaya in Spain (Simmons and Turley 1980:18). As a result, nearly all iron bound for New Mexico came from Spain, arriving via infrequent shipments.

In Mexico, imported iron was relatively inexpensive. But by the time it arrived in New Mexico it was costly and out of reach of many colonists. Those who were wealthy enough to procure ironware goods frequently traded them to the Plains Indians for deer and buffalo hides

and for Indian slaves (Frank 2000:14-15). The lack of metal tools led most people to get along with little furniture, and to supplement metal implements with other materials. For instance, farm tools and looms were often made entirely out of wood (Jones 1932; Frank 2000:19). Furthermore, the lack of metal and the unreliable supply system had a negative impact on New Mexico's role as a defensive buffer. Soldiers, militia, and colonists in general were forced to supplement their few firearms with more antiquated weapons such as lances, bows and arrows (Curtis 1927; Simmons 1990; Thomas 1929). For the majority of New Mexicans, chipped stone tools and the use of wood, where possible, were probably more economical than metal tools and other metal objects.

In addition to using wood and stone, New Mexicans attempted to cope with the lack of metal by producing it themselves. Vaughn's (2006) study of mining and metallurgy demonstrates that Spanish mining in colonial New Mexico tended to be characterized by small-scale, broad-spectrum, metal production that involved a range of metals: including iron, copper, lead, and silver. Rather than being directed towards the production of metallic wealth as in other parts of New Spain, colonial New Mexicans manufactured metal to meet their needs as colonists (Forrest 1996:363; Vaughn 2004:2). In other words, New Mexico's metallurgists produced a variety of metals to meet the everyday requirements of a remote, isolated Spanish colony—one that originated from a metal-dependent, European society, but was embedded in the pre-metal Puebloan culture of a land distant from Spain.

In his study of metallurgy at both pre-Revolt and post-Revolt sites, Vaughn reveals that the mining and the processing of ores was frequently undertaken at the household or community level. And while a range of techniques were employed to mine and process ores, many were simple and could be used by individuals with some knowledge of metallurgy and the exploitation

of locally available materials. For example, data collected from the 17th-century site of Comanche Springs in central New Mexico suggested that metallurgists occupying the site conducted small-scale testing of lead and copper-bearing ores by utilizing a simple open-pit technology. Shallow pits also appeared to be used for the forging of metal objects on the site (Vaughn 2004:193-203).

Archaeological data from San José de las Huertas is fairly consistent with that of other Spanish colonial sites in New Mexico. Metal artifacts were recovered during excavations, but these were few in comparison with sites occupied later in the historic period. Evidence for the smelting of ores and the forging of metal objects was also found. It was once common knowledge that the lands of the San Antonio de las Huertas Land Grant included many mineral-rich resources; although it is little remembered today. And while the earliest extraction of these resources on grant lands is not specifically known, and may date prior to the Spanish conquest, over $50,000,000 in coal, copper, silver, lead, and gold was removed from mines located in the mountains near Las Huertas Canyon over the second half of the 19th century (Forrest 1996:361; Rebolledo and Márquez 2000).

Given the availability of local mineral resources, it is not surprising that the colonists living at Las Huertas were engaged in the smelting of ores and the modification of metal objects. Tables 4.12 and 4.13 list the distributions of metal objects and smelting- related artifacts found in the various areas of the site. A total of 96 metal artifacts were collected from archaeological investigations, but only four were recovered from Area 1. These included an iron fragment, a portion of conically folded copper sheet that appears to be a tinkler or other ornament, a plain brass button, and the top to a rectangular metal can, which is intrusive. Tinklers of tin, brass, or copper were widely used by a number of Native American groups as fringe adornment on

Table 4.12: Distribution of Metal Artifacts by Material Type

Material	Area 1	Area 2	Area 3	Area 4	Area 7	Area 8	Area 9	Area 10	Ferg House	Surface Collections	Totals	Percents
Copper	1					16	1				18	18.7
Brass/ Bronze	1	2	2		1	3		1	1	10	21	21.9
Iron or Iron Alloy	2	2	1	1	7	34			2	1	50	52.1
Lead		5				2					7	7.3
Totals	4	9	3	1	8	55	1	1	3	11	96	100
Percents	4.2	9.4	3.1	1.0	8.4	57.3	1.0	1.0	3.1	11.5	100	-

Table 4.13: Distribution of Smelting-Related Artifacts

Material	Area 1		Area 2		Area 3		Area 4		Area 7		Area 8		Area 9		Area 10		Area 11		Surface Collections	
	CNT	(g)	CNT	(g)	CNT	(g)	CNT	(g)	CNT	(g)	CNT	(g)	CNT	(g)	CNT	(g)	CNT	(g)	CNT	(g)
Slag	6	56.9	344	1967	-	-	1	0.6	131	832.8	11	30.2	275	2228.8	14	19	-	-	11	1103
Refractory Material	5	11.8	81	261	2	0.2	-	-	141	357.5	11	21.9	75	267.8	1	3.6	1	0.3	1	7.7
Vitrified Adobe	-	-	228	749.3	-	-	-	-	33	402	3	3.2	82	1474.5	-	-	-	-	-	-
Waste Rock	-	-	5	130	-	-	1	12.6	32	208.1	-	-	10	253	-	-	-	-	-	-
Ore (malachite)	-	-	-	-	-	-	-	-	1	6.1	-	-	1	2.7	-	-	-	-	-	-
Iron Oxide	-	-	-	-	-	-	-	-	4	10	-	-	-	-	-	-	-	-	-	-

garments, as pouch trim, or at the end of awl cases (Di Peso 1953:204). The undecorated, flat button was cast in one piece, shank and disc together, with a hole drilled through the shank to create the eye. In addition to its use as a stand-alone button, this button type was commonly used in pairs as sleeve links. South dates the style of button from 1837 to 1865, but notes that the shank form was the main type used on sleeve links during the 18th century (South 1964: 124,129).

Figure 4-38: Copper tinkler (Area 1)

Smelting artifacts from Area 1 consisted of six pieces of slag and five fragments of refractory material. Refractory materials are chemically-stable, non-metallic materials typically found in furnaces to withstand the effects of the charge as it reaches high temperatures. Kilns and crucibles may also be referred to as refractory material as they serve similar purposes. Two slag fragments from this house site were identified as having been generated from the smelting of lead. One of these pieces was tap slag, indicating the manner in which the ore might have been smelted. A common by-product of shaft furnaces, tap slag is produced when the slag is tapped off during the smelting process in order to allow the furnace to operate continuously. This contrasts with hearth bottom slag, which is removed at the completion of every short smelting (McDonnell 1983; Tylecote 1992).

A shaft furnace traditionally consists of a cylindrical pit or chimney structure with walls made of earth, clay, or stone. Charcoal or other fuel was added to the top of the furnace and the liquid slag would be tapped from the base (McDonnell 1983). Shaft furnaces are categorized into two basic types: blast (or forced-draught) and natural-draught. Natural-draught furnaces,

sometimes referred to as kilns, do not reach the high temperatures required of blast furnaces. In a blast furnace, the air is usually heated and supplied under pressure (i.e. a bellows) in order to attain temperatures that will melt the charge, allowing the slag and metal to be tapped periodically. This type of furnace has been used in the smelting of iron, copper, and lead (Merriman 1965:300-301). Simpler technologies can be utilized to produce lead. In northern Europe, for example, lead ores were usually smelted in shallow circular pits. The ore was placed on top of wood fuel in the pit, around which a wall was built with deliberate gaps to allow the wind to fan the flames (Tylecote 1976: 97, 134). Both smelting technologies are long-standing and could have been modified for informal or ad hoc purposes.

Area 2 also contained the remains of a house foundation and what appeared to be a reinforced hearth used for metal working in the southeast corner of the structure. Nine metal objects were recovered and included a hook-shaped iron fragment, a small piece of iron bent into a half-tube or u-shape, five unidentifiable lead objects, a possible button, and an intrusive 12-gauge Winchester shotgun shell. The button fragment consists of the plain brass disc portion of the button, the eye and shank missing. Three of the lead fragments have the appearance of being puddled, or are partially melted, suggesting that they were the result of smelting or other metal working activities.

Figure 4-39: Button type found in both Areas 1 and 2

Artifacts recovered from Area 2 support the architectural evidence for metal working in this household. The largest number of smelting-related artifacts was recovered from Area 2, totaling 658 artifacts weighing 3107.3 grams. Slag was the most

abundant, followed by vitrified adobe and then refractory material. Much of the slag (206 specimens) appears to have been generated from the smelting of lead ore. Sixty-four pieces had the morphology of tap slag, 53 of which were from lead smelting and 11that could not be identified as to the ore source. Three pieces of smithing slag (12.6g) provided the only evidence of working with metal implements. Identifiable among the 81 pieces of refractory material were two fragments of smelter wall, one fragment of smelter floor, and a piece from either the wall or floor. Of the 228 pieces of vitrified adobe, only one might have been part of the smelter wall. Five fragments of waste rock were also found, one containing traces of malachite and another with a high iron content.

Few metal objects or smelting-related artifacts were recovered from Areas 3, 4, 10, 11 and in the surface collections. An iron fragment, two pieces of copper sheeting, and two small pieces of refractory material were found in Area 3, or the plaza area. The cart road (Area 4) yielded a portion of an iron blade (possibly from a knife) with two small drill holes at one end, a slag fragment, and a piece of waste rock containing traces of malachite. One plain brass button, nine lead slag fragments, five unidentified slag specimens, and one piece of vitrified adobe were recovered from Area 10. The button measures 14mm in diameter and is a flat coin-shaped disc of brass in which a brass wire eye was fastened to the back with a drop of solder. This button type has been dated to the 1760s-1860s (South 1964). No metal objects and only one small piece of refractory material were found in Area 11. The surface collections yielded 11 pieces of slag and one piece of refractory material. This small assemblage contained four pieces of lead slag, three of which were tap slag, and one fragment of smithing or forge slag. One metal object was found on the ground surface but could not be identified despite its size and shape. It is a brass object resembling the shape of a small bowl but with extensions on two sides like that of a

basket. The 'handle' portion of the object has broken off leaving its domed body. A hole was drilled in the bottom of the 'bowl' around which three or more circles have been etched.

Area 7 was defined by the presence of two pits, one overlaid on the other but with differing footprints. Although the functions of the pits are unclear, they were evidently used as dumping sites after their use was discontinued. Eight metal objects were recovered from this feature and consisted of seven heavily corroded iron fragments and portion of a brass thimble.

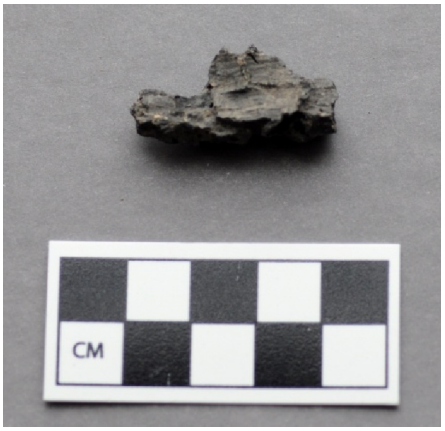


Figure 4-40: Slag piece exhibiting impression of fuel source

While much of the slag (47 specimens) found in Area 7 was the by-product of lead smelting, 14 pieces of smithing slag (weighing 194.0g) were identified. A fuel source is hinted at by a piece of slag that formed on top of what appears to be wood or charcoal. The impression of charred wood grain is visible in the surface of this specimen. Within the refractory materials, 12 fragments of forge were recognizable along with five pieces of what appear to have been vitrified ceramics; though the severe burning, bloating, and slagging of these sherds barely made them identifiable as such. Among the fragments of waste rock, a single specimen contained traces of malachite. Additionally, one fragment of copper ore (malachite) and four small chunks of iron oxide were collected in this area.

Relatively few smelting-related artifacts were found in Area 8. Seven of the 11 slag fragments recovered were from lead smelting and one of these was a piece of tap slag. Eight pieces of refractory material appeared to be dirt that had been heavily burned or had become vitrified. And one fragment of waste rock contained traces of malachite. In contrast to the 25

smelting-related artifacts from Area 8, the greatest number of metal objects was recovered from this household. The relatively large size of this assemblage is probably in part due to better preservation in this part of the site. Despite the large assemblage size, however, most of the metal artifacts are small fragments.

Copper objects from Area 8 consisted of 12 partially worked fragments or scraps of copper sheeting, two nails, a tack, and one plain button. The button was formed when a wire eye was fastened to the back of the disc portion during casting. Prior to the casting, the ends of the eye on the button were turned out to form the foot. This button type has been dated to the 1740s-1770s (South 1964).

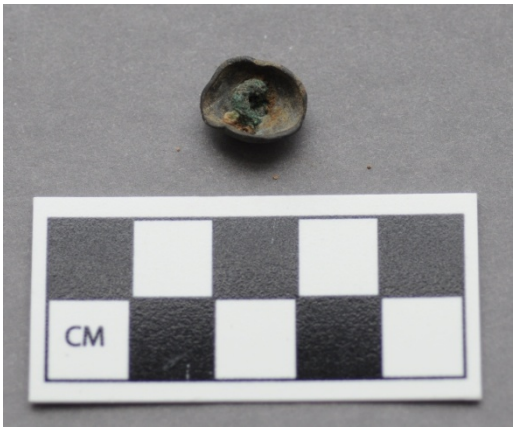


Figure 4-41: Domed Button (Area 8)

Three brass objects were recovered and include a piece of sheet metal rolled into a thin conical shape, an embossed button cover, and a plain button. The embossed button cover, which may have been gilt or silver-plated, would have been crimped over a bone or wooden back that had four holes. The plain brass button was also of the mold cast type and fashioned in the same manner as the copper button above. However, this button appears to have been modified, edges bent downwards to make it roughly dome-shaped. Both buttons and the button cover date to roughly the same time period—the mid to late 18th century.

Other metal objects discovered in Area 8 include two lead fragments, ten fragments of iron (three with holes punched through them), and more than 20 pieces of cast iron corroding from one principal fragment. Additional identifiable iron objects consisted of a corroded nail

fragment, a probable nail fragment bent into a c-shape, a jingle (or jingler), and a square-headed bolt or peg approximately one centimeter in length and slightly threaded at its base. Jingles were small ornaments, typically made of brass or iron, which would have attached to the bridle and other saddle trappings (Di Peso 1953:195). The jingle found in Area 8 is plain, rectangular in shape, and looks to have been part of the bridle, possibly attached to the bit.

Area 9 seems to have served at least two functions. Initially, it appears to have been used as a location for the smelting of ore and metal smithing. Following its use as a site for metal production, there is evidence indicating the area served as a place to keep livestock. This supposition is supported by the presence of wide adobe wall segments and a large quantity of smelting-related artifacts, over which lies an insubstantial stone foundation and dung-rich strata. While Area 2 had a higher artifact count with respect to metallurgical activities, the artifacts recovered from Area 9 weighed over a kilogram more.

Most all of the slag discovered in Area 9 was related to lead smelting (256 specimens), but two copper and three smithing slag fragments were also found. One smithing piece contained bits of metal and two others were partially oxidized to the shade of green suggesting that they were a by-product of copper working. Six fragments of lead tap slag indicate that at least one smelting episode took place in which the smelter operated continuously. Seven fragments of smelter surface and one piece of vesicular basalt covered in melted debris were identified among the refractory materials. Two pieces of vitrified adobe were recognizable as belonging to the smelter wall, and ten pieces could only be identified as more general smelter surfaces. Eight additional fragments of both refractory material and vitrified adobe likely exhibited smelting surfaces as well. One large fragment of waste rock containing traces of

malachite and one small piece of copper ore provides further evidence for limited manipulation and/or production of copper.

Only one metal artifact was found in Area 9, a projectile point formed from a thick segment of copper sheeting. The presence of this hand-fashioned projectile point suggests the manufacture of arrow points, probably from locally procured and processed materials, by the villagers of Las Huertas for defense and hunting purposes.

Thirteen pieces of metal were collected from Ferg's work at Las Huertas, three from the Spanish colonial house context and ten from other proveniences across the site. Two fragments of heavily rusted iron wire of unknown function were found in the fill of the northeast quarter of the bedroom. One piece of scrap brass was found atop Feature 2, a possible borrow pit. A flat, cast-brass button was discovered in the stripping grids nine meters west of the house (Ferg 1982:58-59). The button shank and disc were cast in one piece with a hole drilled through the shank to create the eye. This is the same kind of button or sleeve link that was found in Area 1, and thus, dates to the same time period.

Figure 4-42: Iron Jingle (Area 8)

An iron ring bit jingle was collected inside the northern corner of the walled-village. Having the appearance of a loop with a flattened tail, jingles such as this were a popular feature on early Spanish ring bits. These ornaments were also used on Navajo bits well into the 20th century. The jingles were called *coscojos* when suspended from the bridge of the bit, or *zarcillos* when hung from the cheek plates (Ferg 1984:59).

Five pieces of scrap brass produced from the manufacture of other objects were also found along the northern extent of the walled-village. Two additional brass objects were collected along the perimeter walls (in the northeast and southwest corners, respectively) that could not be identified as to form or function. One consisted of two fragments of brass sheeting that had been riveted together. The second was constructed of brass sheeting into which a stylized floral or botanical design had been hammered (Ferg 1984:59-60). A third brass object was found east of the house excavated by Ferg. Roughly triangular in shape and decorated with engraved parallel lines, this brass fragment may have come from a large heavy cooking vessel or some other obscure object. Oddly, no smelting related artifacts were collected from the Ferg excavations. Perhaps the majority of metal working and smelting activities were kept within the village walls.

Summary

The range and quantity of smelting-related artifacts found at Las Huertas confirms that the villagers were engaged in metal producing and processing activities, specifically the smelting of ores as well as the forging or modification of metal implements. Although artifacts indicative of smelting or metal working were recovered from nine of the eleven areas excavated, the large concentrations of materials found in Areas 2, 7, and 9 suggest that these three places were loci of metal production and metal working. The preponderance of lead slag (67.2%) in the site assemblage and the presence of smelter remains found in Areas 2, 7, and 9 demonstrate that lead smelting was the most prevalent metallurgical process being practiced at the village. Smelting activities were probably tightly contained and strategically placed given the toxicity of lead residues and fumes to surrounding vegetation and soils. Once the metal was extracted from the

ore, it could have been re-melted in any domestic pot. Crucibles were unnecessary given the low melting point of lead. Additionally, molds for lead objects (or its alloys) were historically made of fired clay, fine-grained stone, wood, or antler (Bayley 1995). Any of these materials could have been easily obtained by the villagers of Las Huertas and adapted to perform whatever task was required.

While Area 2 functioned as a site of intermittent metal production, it is unlikely that any smelting activities were carried out within the domestic structure itself. The ventilation of fumes and oxygen flow would have been problematic for smelting ores indoors. However, the processing of lead into transportable, or usable, units as well as some forging activities could have taken place inside. The heavy architecture of the corner hearth in Structure 2 and the presence of smithing slag are supportive of indoor metal-working. Forge work can be preformed most anywhere; any domestic hearth can be used as it does not require a structure built for this purpose (McDonnell 1995). Moreover, smithing hearths used for the manufacture and repair of objects may be ephemeral structures as only a clay wall or some other apparatus is required for separating the fuel and bellows (Crew 1996). The identification of smelter wall and floor fragments in Area 2 suggests that a smelter did operate in this area. Although no imprint has been identified for the smelter, it was probably located outside of the house and dismantled after it was no longer needed. Depending on the type of feature constructed, the furnace (or hearth) may have been functional for only one or two smelting episodes.

Prior to its modification into a corral, Area 9 also appears to have been a site of lead production. This area registers the highest volume of slag on site, over 90% of which is lead slag. Thick adobe wall segments, fragments of smelter surfaces, and tap slag are indicative of more intensive lead production in this part of the site. A more substantial smelting furnace

would have required considerable quantities of clay, often heavily grogged with large temper. Clay bricks are also known to have been used in furnace, as well as forge, construction (Crew 1995; Di Peso 1953:185). Slag remnants imply the furnace operated continuously, but the duration and number of smelting episodes are ambiguous given the current dataset.

A few fragments of smithing slag recovered from Area 9 imply that some minor forge work occurred in this area as well. Moreover, it was the only location in which two fragments of slag containing traces of copper were found. These slag pieces may be products of copper smithing or may have been inadvertently produced during the manufacture of lead as copper and lead frequently co-occur. If the villagers did engage in copper smelting, it would have been an uncommon occurrence and performed on an extremely small scale as low-tech copper smelting requires enormous amounts of fuel for the lengthy ore roasting and smelting processes (Tylecote 1976:94).

It is difficult to discern the precise role Area 7 played in the production and processing of metal. The large quantity and diversity of smelting remains found in the Area 7 pit feature indicate that this location served as a dump site for metal processing debris. Although the pits were filled with large amounts of ash and burnt artifacts, there is little architectural evidence for metal working within the pits themselves. Artifacts related to metal production included forge fragments, pieces of smelter wall, vitrified ceramics, and smithing slag. The borrow pit yielded the greatest quantities of smithing slag and vitrified ceramics among the excavated areas. Again, the discovery of this kind of slag in a dump context is illustrative of the more ephemeral nature of smithing activities. Furthermore, it is uncertain what role ceramics played in the process of metal production. Perhaps some vessels were used as crucibles, or the vitrified ceramics were possibly altered by other activities in the refining process.

The limited evidence for forge activity within the village, especially as it is represented by the presence of smithing slag, does not necessarily mean that forge work did not occur with greater frequency than is suggested by the quantity of smithing-related artifacts. Some by-products of the smithing process, such as hammer scale and anvil slag (or spatter), can be difficult to recover given its small size and the ease with which it erodes (Crew 1996). Archaeological data illustrates that smelting activities occurred on a larger scale than did forging work. This is in part due to the villagers smelting of low-grade lead ores at high temperatures, which produced greater amounts of slag. In addition to the difficulty of recovering forging by-products, the scarceness of smithing-related artifacts appears to further indicate the small number metal objects in circulation within the village. Regardless, Las Huertasanas still would have needed to repair or even repurpose the few metal objects they did have within their possession.

Metal working almost certainly took place at the household level, particularly smithing work. Individual households may have performed minor modifications to metal objects, but tasks requiring greater skill undoubtedly were handled by a few specialists (or smiths) residing within the community. The concentration of smelting and metal processing artifacts in a limited number of locations across the village provides evidence for the supposition that a couple specialists serviced the entire community. Smelting, however, probably occurred at the village level with multiple families engaged in the procurement and processing of ore as well as its refinement for use within the village and its preparation for transportation to other locales within New Mexico.

In August of 1818 an unsigned letter to the Alcaldes of Alameda, Las Golondrinas, and Taos ordered the extraction of five or six loads of lead from mines near Las Huertas. In the letter, the provincial government recognizes the mineral wealth of the villagers' grant lands and

requests the immediate extraction of lead for the manufacture of bullets "*para castigar los Enemigos al Estado que los inslutan*" (in order to chastise the enemies of the State who insult it). The correspondence asserts that the lead mines were not being worked by the residents. The letter further states that it is the Alcalde of Taos's responsibility to act on the government's behalf in this matter as Las Huertas was under his jurisdiction (SANM I, Archive 1150, Roll 6, Frame 365-366).

Contrary to the assertion made in the letter, archaeological evidence confirms that the villagers of Las Huertas did process lead. At this point, the question becomes whether the villagers engaged in lead production in order to help meet the demands made upon the Alcaldes of Taos, Golondrinas, and Alameda, or if they processed lead for their own use. Assuming San José de las Huertas was largely abandoned in 1826 and the letter to the *alcaldes* was correct in its assertion regarding the local extraction of lead ores, then all lead production in the village would have occurred, at most, over the an eight-year period. This seems unlikely given the archaeological remains. For instance, the presence of a smelter underneath the corral in Area 9 is indicative of a greater time depth than allowed for by the official correspondence.

Furthermore, the presence of small lead fragments in domestic contexts suggests that the villagers may have made their own ammunition. Although the need for shot was probably not great, as the Muster Rolls for Las Huertas dating to the early 1800s tell us that only 20 men out of nearly 300 people had guns, some bullets may have been produced for hunting and defensive purposes (SANM II, Roll 10, Frames 188-189). Lead (or its alloys) could also have been used as solder to repair other objects and as a source of metal for the production of much needed items.

The quantity of lead (five to six loads) requested by the provincial government and the urgency with which it was to be delivered most likely required the use of a labor force larger

than what the villagers at Las Huertas could provide. As such, the Alcaldes may have enlisted the assistance of surrounding settlements for the extraction and processing of lead ores. Much of the lead extraction and processing related to this task could have taken place outside of Las Huertas, closer to the mines, which further supports the proposition that smelting occurring inside of the village was for domestic use, and perhaps for occasional trade with other communities.

Metal objects and the debris resulting from its production provide parallel datasets that corroborate the scarcity of metal in circulation at San José de las Huertas. This is not uncommon as metal artifacts frequently occur in small quantities at 18th-century sites in the American Southwest. A total of 96 metal artifacts, mostly fragmentary and small-sized, were recovered from archaeological explorations in and around this walled-village. All of the objects found are characteristic of an agrarian community with little metal resources (see Table 4.14).

The small quantity of hardware present, along with the architectural remnants of the village, demonstrates that most structures were built of adobe. Smaller, simpler constructions could have been made from wood and other locally available materials. Residents had very little furniture and much of what they did have was wholly constructed from wood as well. Oral narratives collected from the descendant community support the archaeological findings. Village elders describe the use of wooden pegs instead of nails, and that they made use of rope where pegs were impractical as fasteners (Rebolledo and Márquez 2000:433).

The narratives further emphasize the villagers' manufacture of their own clothing. It was a momentous occasion when articles of clothing made elsewhere entered the community, everyone being keenly aware of a family's new purchase. The presence of a thimble fragment is illustrative of sewing as well as the likelihood that such items were carefully cared for given the

Table 4.14: Metal Artifacts by Excavation Area

Type		Area 1	Area 2	Area 3	Area 4	Area 7	Area 8	Area 9	Area 10	Ferg House	Surface Collections	Total
Clothing/ Personal	button	1	1				3		1		1	10
	tinkler	1					1					
	thimble					1						
Cooking	cooking vessel										1	2
	knife blade				1							
Furniture	nail						2					3
	tack						1					
Construction/ Hardware	nail						2					7
	bolt						1					
	wire									2		
	hook		1									
	pipe-like fragment		1									
Horse Equip.	jingle						1				1	2
Arms	projectile point							1				1
Miscellaneous	iron fragment	1		1		7	10					69
	cast iron						<20					
	lead fragment		5				2					
	brass sheet/scrap			2						1	6	
	copper sheet/scrap						12					
	decorated brass sheeting										1	
	UID brass object										1	
Intrusive	can	1										2
	shotgun shell		1									
Total		4	9	3	1	8	55	1	1	3	11	96

irregularity with which they could be obtained. In this light, it seems somewhat surprising that a relatively large number of buttons (27% of identifiable objects) were found on site. There are a number of reasons as to why this particular class of artifacts occurred with greater frequency.

First of all, buttons are easily lost and difficult to recover once they have fallen from an article of clothing. Secondly, buttons may better withstand the erosional processes in archaeological contexts than other metal objects. Their size and form also make them more easily recognizable than larger objects that become broken. Additionally, the villagers of Las Huertas may have had greater access to buttons through trade with Plains groups. Plain-faced buttons were issued to American settlers in the east as trade goods for the Indians. These items may have trickled into New Mexico through native trade networks and become accessible to settlers at trade fairs. Thus, buttons may have entered Las Huertas as solitary trade items or on articles of clothing supplied via the Camino Real. Plain-cast buttons like the ones found at the village site were common on both civilians' and soldiers' trousers (Olsen 1963:552). Furthermore, unadorned sleeve links (or linked buttons) were used on the cuffs of a lady's shift or a man's shirt, both of which were basic garments in 18th century.

The miscellaneous metal category, which consisted of unidentifiable fragments and scraps of metal, constituted the largest class of metal artifacts in the assemblage. This is to be expected in a community in which metal was scare and the reuse and repurposing of metal objects was common. Iron fragments were the most numerous among the miscellaneous metals and, as a material type, it made up approximately half (52.1%) of the total assemblage. In addition to unidentifiable pieces, iron artifacts tended to include hardware or objects related to construction, such as nails, a bolt, and wire. A fragment of a knife blade and the jingles found on horse trappings were also manufactured from iron.

Objects made of copper, or from copper alloys such as brass, comprised 40.6% of the metal assemblage by count. To some extent, its prevalence at the site was probably due to the popularity of this material. Copper was favored in Mexico and Spain for the fabrication of cooking utensils as it was easy to manufacture and could withstand a great deal of hard usage. Once broken and beyond repair, a vessel could be re-melted and hammered into a new shape. Additionally, worn-out pieces could be cut up with simple tools and the fragments used to patch other vessels (Di Peso 1953:183-184; Ivey and Fox 1981:36). Given the copper-rich deposits in the region and the imperial monopoly on iron, copper may have also been easier to obtain through local trade networks.

The predilection for copper is evidenced at other Spanish colonial sites where fragments of copper or brass kettles and other containers, as well as copper sheet scrap, commonly occur (Williamson 2001:106; Ivey and Fox 1981:36). Pieces of worn-out vessels were not only used as scrap but for the manufacture of new items as well. Like the copper projectile point found in Area 9, arrow points made from scrap metal and sheet iron have been found at 18th and mid-19th-century sites in Texas (Ivey and Fox 1981:36). The occurrence of these objects, and the fact they were cut up, patched, and the pieces kept, illustrates that metal was scarce and highly prized on the frontier.

Lead fragments comprised just 7.3% of the metal assemblage. The small amount of lead found on site as well as the considerable evidence for metal working and production suggest that much of the village-manufactured metal was either traded or used off-site. This seems reasonable if the lead being used by the villagers was in the form of shot as hunting would have occurred away from the village. Even bullets fired in defensive skirmishes would largely be located outside the village walls.

In short, only a small number of metal objects probably reached the community at Las Huertas. Those items that did find their way into the hands of the villagers were heavily curated or repurposed to fulfill other needs once they had become ineffectual. Small-scale metallurgy was also practiced at the site level to supplement the requirements of the community, and possibly those of the province as well.

Other Historic Artifacts

The remaining historical objects recovered from Las Huertas are discussed somewhat collectively given the low frequencies with which they occurred in the site assemblage. Despite their small numbers, these artifacts do provide some important glimpses into the economic standing and religious devotion of the villagers who occupied the land grant.

Glassware

Glass is rare in Spanish colonial contexts in New Mexico. But, it does occur with greater frequency in the Spanish colonial inventories after 1790. Products housed in glass vessels were likely to be imported to the province included medicines, chemicals, liquors, wines, and perfumes. Tablewares that included such goods as tumblers, goblets, stemware, pitchers, and decanters were also fairly common in several households (Atkins 2001:91). The costs of obtaining many of these commodities was likely prohibitive for some New Mexicans given that the items would have had to have been carried over the Camino Real, or the Santa Fe Trail beginning in the 1820s. Probably few villagers from Las Huertas were able to purchase these goods as coinage was rare, particularly among the peasant population.

Like some of the other artifact categories from San José de las Huertas, the majority of the glass specimens were small and fragmentary. This artifact grouping consisted of one faceted, rosary bead and 36 glass fragments—having an average length of 1.9 cm. An inventory of the artifacts is listed in Table 4.15.

Table 4.15: Glass Artifacts

Provenience	Color	Qty	Form
Area 1	Aqua	2	Container
Area 2	Colorless	1	Paneled bottle
Area 3	Black	1	Unidentified
	Blue	1	Faceted rosary bead
	Colorless	2	Unidentified
Area 4	Colorless	1	Container
		1	Unidentified (melted)
Area 8	Aqua	2	Unidentified
	Colorless	2	Bottle
		2	Container
		6	Unidentified
	"7up®" Green	2	Unidentified
	Olive	2	Bottle
		1	Unidentified
Area 9	Colorless	1	Ribbed bottle
Area 10	Amber	1	Bottle
		1	Unidentified
Surface Collections	Amber	2	Bottle
	Aqua	2	Bottle
	Blue	1	Unidentified
	Colorless	1	Bottle
	Olive Green	2	Bottle
Ferg House	Olive Green	1	Bottle

The small size of most of the fragments made the identification of form difficult. Approximately half of the assemblage (53%) was identifiable as to some form. Bottle fragments comprised 42% (N=15) of the assemblage, nonspecific containers made up 11% (N=4), and 47% (N=17) of the fragments were not identifiable to any form. Regardless, the fragments are suggestive of utilitarian glassware and not of tablewares. Utilitarian glassware is used in this context to designate glassware forms that do not function as tableware containers and thus would include forms like bottles, jars, and vials.

In general, utilitarian glassware exported to the colonies during the 18th century was dominated by foreign wares. American, French, Spanish, English, and Dutch glassware found its way to Spanish colonial sites during this period as a result of Bourbon economic reforms. Bottles from England and France were filled in Spain and shipped to the New World, while jars

and vials likely came from Andalusia, England, France, and Germany. At least a portion of the utilitarian glassware that ended up in colonial settlements was made in Mexico. The glass factory in Puebla produced vessels that were colorless (or "white"), green, or blue (Deagan 1987:129-134).

The glassware found at San José de las Huertas is consistent with these trends and appears to have been imported from some distance. Furthermore, identifiable characteristics from the assemblage suggest a greater time depth of site occupation, which appears to be a bit incongruous with the historical documents and other archaeological data. The potentially oldest glass fragment could date to the late 17th century, while the most recent was probably deposited in the late 20th century. As such, the glass fragments were sorted into three groupings that broadly relate to the use of the land grant area over time.

Eight glass fragments appear to date to the founding and original occupation of the site and occur in Areas 1, 3, and 8 as well as on the surface. Ferg also found a small piece (2 cm) of dark olive-colored, bottle glass from his excavations of the house north of the walled-village (1984:58). In this first grouping there are what appear to be two olive glass flakes. As glass is scare at most Spanish colonial sites, glass flakes are probably even rarer; however, it was not uncommon for Native American groups to use thick glass bottles as a lithic resource when obsidian and fine cherts were difficult to obtain, a practice that continued well into the 19th century. Given the reuse of much of the lithic materials in the assemblage and the fact that villagers from Las Huertas and Placitas were using bows and arrows throughout the 19th century, it is possible that some glass bottles could have been purposed in this way.

Ten shards recovered from Areas 2, 8, 10 and in Surface Collection 6 probably date to the mid-19th through early 20th century and are related to the use of the area after the village of San

José de las Huertas was abandoned. The presence of such remains in the assemblage is not surprising considering that "Old Las Huertas" was used by descendants of the land grant as agricultural plots after the founding of Placitas and reoccupation of the area in the 1830s and 1840s. The largest grouping of glass specimens consists of 18 modern fragments (post-1930), most which appear to be from beer bottles. These trash fragments were found in Areas 3, 4, 8, 9, 10 and on the surface. Again, it is not unreasonable to find such debris throughout the site. A modern dirt road cuts through the northeastern portion of the walled village, a 1960s era hippie occupation is associated with the southernmost portion of the site, the area was a popular place for family outings in the mid-20th century, and the local population still finds pleasure in walking along the southern extent of the site. With this kind of transitory use of the old village area, the presence of modern trash is not unexpected. Overall, glass dating to the occupation of San José de las Huertas is uncommon, suggesting that the villagers obtained few goods that would have been housed in such containers and that glassware was largely absent from household table settings. Furthermore, those glass vessels that did make it into the village were likely curated or repurposed for other uses.

Due to their small size beads may be difficult to retrieve from archaeological contexts. Only one glass bead has been recovered from the site and it was found in the plaza area (Area 3). This faceted rosary bead is spherical in shape and made from a blue translucent glass. It is of wound construction and measures approximately 11 mm in diameter. Rosaries were highly prized and probably heavily curated by the devout Catholic population living at Las Huertas. These ornamental yet religious objects could have been obtained through trade over the Camino Real or through the peddlers that visited the village to sell religious trinkets and relics. Thought to have curative properties, the most popular rosaries were those made of seeds or berries that

resembled cherry pits. However, rosaries made of glass beads available in a variety of colors could also be had. Although considered expensive by the villagers, every family in the village saved to purchase a rosary. Despite their cost, these small religious items would have been within reach of everyone as traveling peddlers accepted goods in barter as well as coinage (Rebolledo and Márquez 2000:309-312).

Miscellaneous Objects

Five items were recovered from our excavations that did not fit into any of the other analytical units of analyses. All of these objects are modern and date to the 20th century. A small piece (7 mm) of red and yellow vinyl was intrusive to Area 2. In Area 8, a little piece (1.5 cm) of painted concrete, a brown plastic button, and a broken shell button both measuring 11/16" in diameter were also intrusive. While shell buttons have been fabricated for hundreds of years, it is uncertain that this button is associated with the occupation of Las Huertas. Oral historical accounts indicate that the villagers of San José de las Huertas made all of their own clothing, including the tools that helped them manufacture the garments (Rebolledo and Márquez 2000). Shell is not native to the area and if the villagers made buttons they likely would have been constructed out of bone, horn, or wood. Moreover, the presence of a plastic button of the same size in Area 8 suggests that these materials are intrusive, making their way into the archaeological deposits through bioturbation. A dark brown Bakelite button also measuring 11/16" in diameter was found on the surface in the west central portion of the walled-village. Again, these materials are a result of the many activities that took place on the land grant after the old village was abandoned in 1826, including its use as agricultural fields by the Trujillo family (descendants of the founders) in the late 19th and early 20th century, for recreation in the mid-20thcentury, and the hippie occupation of the 1960s.

Community Structure

The archaeological remains from San José de las Huertas allow glimpses into the structures that shaped village life as well as the activities in which social actors were engaged. The oral historical narratives pertaining to Las Huertas, and later Placitas, amplify this data by providing information on those aspects of village life that are less visible in the material record. In addition to describing the corporeal components of daily life, the stories depict the kinds of relationships that existed between neighbors and family members. Uncommon occurrences were also related through such recitations. Taking the whole of the oral historical data, generalizations regarding the structure of this 18th-century settlement can be made.

The San Antonio de las Huertas Land Grant was a communal grant of land given to families who would settle it collectively, as opposed to individual land grants that were also bequeathed on behalf of the Spanish government. The villagers of Las Huertas possessed their homes, corrals, fields, and livestock, but water, grazing land, mineral deposits, and forestlands were accessible to all. Agricultural fields encircled the village and were possessed by the nuclear family, but much of the farming was done communally. Communal work was desirable so that fields could be worked while herds were watched, firewood collected, and other important activities could be carried out. Cooperative labor was especially important at harvest and planting times, during which the entire community coordinated to work together (Rebolledo and Márquez 2000; Smith 1973).

Although personal property and field plots were inherited bilaterally and equally among heirs, land that was abandoned or no longer actively used reverted to the community and was given to another villager to cultivate. Obvious exceptions to this practice were the community grazing and forest lands, which comprised the majority of the land grant and were never

considered to be personal property (Smith 1973:148-149). When field plots became too small and fragmented through inheritance to support a household, relatives traded and sold land to each other. In this way, the *familia* functioned so that small parcels of land could be combined for mutual survival.

The majority of villagers owned their own animals and operated as independent herders, since they collectively owned the land on which they grazed their herds. Those who did make use of the *partido* system primarily contracted their herds from neighbors and relatives. Animals were typically owned individually, but herded both by the individual and collectively. Individual herding was done by those with small flocks and no relatives in the village (Rebolledo and Márquez 2000; Smith 1973:93-94). Members of *familias* combined their animals into collective herds so that, as with farming, they could efficiently accomplish all of the tasks necessary for survival. Collective herds were divided and grazed in two portions. Lambs and some goats were kept in pasture close to the village year round. To protect them from theft and other dangers, animals were penned in household corrals within the walled-village at night. The men also took sheep, goats and what little cattle they had to high pasture in the Sandía Mountains for weeks at a time during the summer months, and herded them close to the village in the winter (Rebolledo and Márquez 2000; Smith 1973).

At San José de las Huertas, and later Las Placitas, a villager was a member of a family. Allegiance was to his or her nuclear family and then to the members of his or her *familia*. The *familia* encompassed at least one nuclear family, or household, and was extended to those related by blood or marriage (Mead 1953), but rarely exceeded five nuclear families. As most villagers were related to other villagers, a Las Huertasana could theoretically belong to more than one *familia*. However, since the *familia* was a socio-economic group, a villager could be associated

with only one *familia* at any given time. *Familias* often shared food, herding, farming, wood collecting, and other chores.

In addition to consanguineal and affinal ties, villagers could be related through *compadrazgo*, or godparenthood. In the more affluent ranks of Spanish Colonial society, godparents had pivotal roles in their godchildren's births, confirmations, and marriages. There is no evidence in the archival, nor oral, record that the villagers of Las Huertas observed the right of confirmation, but there is an indication that baptisms did play an important role. Godparents gave their godchildren religious training, assisted in their discipline, brokered marriage proposals, and were responsible, along with the couple's parents, to ensure that their marriages were successful. The *padrino* and/or *madrina* were not only guardians to their godchildren, but were *compadres* (or co-parents) to the godchildren's parents as well (Rebolledo and Márquez 2000; Smith 1973). In this role of "co-parent," the alliance between the families of the *compadres* and the godchild was strengthened and the *compadre* often favored the family of his godchild with economic benefits, such as *partido* contracts.

Outside the kin group, the most respected and unifying force to structure social labor was the *acequia* system with its elected *mayordomo* (Robolledo and Márquez 2000; Swadesh 1974). Under the supervision of the *mayordomo*, the community irrigation system was kept in workable condition. This task entailed keeping track of all the users (or *parciantes*) and organizing the men to regularly clean out and repair the ditches. The users were also called to action when storms or other things caused the ditches damage. For his service, the *mayordomo* received gifts of produce or goat hides (Robolledo and Márquez 2000:294-297).

Archival documents show that the *alcalde* and *teniente* acted as peace-keepers and, when necessary, arbiters for the governmental apparatus. Intra-village conflicts were undoubtedly

handled locally, with outside intervention occurring only when a dispute could not be resolved or when a crime was too great (as in attempted murder). Oral histories reveal that the community often chose a wise man to be the *alcalde*. Wisdom provided power, along with authority. It was a trait that was partly acquired through age and in part accounted for by innate ability. Furthermore, the model leader had to be able to take charge during a crisis, and was willing to challenge authority if need be. It was the duty of the *alcalde* to maintain the records that were pertinent to the village. Because he also kept the calendar, which was inscribed on properly prepared animal hides, he proclaimed the feast days as well. A truly gifted *alcalde* (or wise man) was also good farmer. His capacity to read the elements and heavenly bodies helped the community decide what crops to plant and when. Another kind of wise man was the prophet (*el advinio*). The village did not always have one in residence as he was born and not made. As a seer of visions and dreamer of dreams, he offered advice on the mystical aspects of life (Rebolledo and Márquez 2000:417-421).

Even though San José de las Huertas had no chapel, no cemetery, and, thus, no regular services, religious observances and fiestas still served to structure the social and spiritual lives of the villagers. In the first years following its settlement, local celebrations were typical as it was not until 1795 that Las Huertas was assigned to San Felipe Mission. After this a Franciscan priest from the mission would travel to the village to lead the yearly celebration of the fiesta of San Antonio (Forrest 1995:20; Smith 1973:36). Consequently, the villagers were left to manage many of their own spiritual affairs. Marriages, baptisms, and funerals were the momentous life events that warranted the sixteen-mile round trip to San Felipe Pueblo.

Marriages were festive affairs and the wedding party usually traveled to the mission, if the couple could afford to pay the priest for the ceremony. For those who could not, a marriage

celebration with feasting and dancing took place, but the union was not officially sanctioned by the church. Due to the delicate condition of a woman after she had given birth, it was the duty of the godparents to ensure the infant safely made the journey to San Felipe Pueblo where the child could be baptized by the priest. Funerals were sober occasions in which the deceased was wrapped in a shroud and laid upon a ladder (made to bear the dead) that then was carried to San Felipe to be buried in the cemetery there. Men were in charge of preparing the body for burial, and were the only ones to make the trip as it was physically arduous to carry the body such a far distance. When they stopped on their journey for a rest, they erected a cross or small shrine of rocks to mark the spot of the *descanso*, or resting place (Rebolledo and Márquez 2000:124).

There were three major fiestas that were observed by the entire community every year: Christmas, Easter, and San Antonio Day. Although the specific rites vary with each celebration, a brief examination of the festivities surrounding San Antonio Day provides a sense of what was involved to stage one of these events. Women spent weeks sewing, cleaning, and washing in preparation. But they spent months saving and gathering the food and items necessary to make the celebration a success. Food, wine, and music were staples in such an endeavor. On the day of the ceremony, the villagers dressed in their finest apparel to pay homage to their saint, which was represented by a wooden carving blessed at San Felipe Pueblo. After the hallowed ceremony was conducted, the people moved as a procession through their village before the dancing and feasting began. The rest of year, each family took turns keeping the saint, sheltered in its *capilla* (shrine in this context), in their house where every person could come to pray (Rebolledo and Márquez 2000:121, 201-205).

Normative Behavior

Beyond the demands of kinship obligations (either consanguineal, affinal, or fictive) and the socio-political positions (i.e. *alcalde* and *mayordomo*) that created an authoritative system outside of the network of kin relations, an individual's membership within the community was structured through gender and age roles. Oral histories from Las Huertasana descendants portray the community's expectations of social roles through tales of both exemplary and transgressive behaviors. Furthermore, normative behavior is more subtly illustrated in stories centered on other subject matter—for example, a tale of an Indian raid, the description of how clothing was made, the story of how a carved *santo* came into being, or the telling of hosting a meal for an honored guest. Although such actions typically reinforce community structures, the time depth of the narratives do permit the discovery of some minor changes in these structures over the decades.

Boys and girls learned of the roles they would inhabit from an early age. Children engaged in a variety of games until they were about six years old, at which point they began their more serious, supervised training by assisting their parents. By the time they were 12 to 14 years old, they donned the style of dress appropriate for their adult gender and assumed greater responsibilities. Boys tended flocks of sheep and goats while the men were busy in the fields or away on hunting trips or trading expeditions. Meanwhile, girls aided their mothers with all manner of domestic chores until they were wed and had a household of their own (Rebolledo and Márquez 2000:117, 248).

Women were tasked with caring for children, preparing their daughters for womanhood and looking after their sons. They cooked, prepared, and conserved food; planted and tended kitchen gardens; carried water from streams to dwellings; and made candles from tallow. They

spun wool, wove cloth, and made garments and blankets for their families. Women cleaned homes, and once a year plastered walls and floors inside and out. Men cultivated the larger plots of land—planting, tending, and harvesting them. They herded sheep and goats during the day and guarded the herds at night. Men hunted and also involved themselves in political affairs (Rebolledo and Márquez 2000:159-160, 168). Even if conceptions of gender roles seemed clear-cut, in practice there was much sharing and overlapping of duties. Men could do women's work when women were not available and vice versa. Likewise, skilled labor (like weaving or woodworking) may have been a specialty belonging to an individual of either gender.

For the villagers of Las Huertas, hairstyles and clothing were practical but also very conservative. Behaviors were codified through dress and served as visual cues as to one's status. Clothing and hairstyle signaled one's gender, marital status, and morality. All clothing was manufactured within the village, and primarily at the household level. Women spun goat and sheep's wool into fabric that was then sewn into garments. Manta, a coarse un-dyed cotton cloth from Mexico, was also used when available. Men were responsible for much of the tanning and hide work, though women were the ones to assemble the leather garments. Everyone went barefoot or wore *tewas* (or moccasins), which were likely made by both men and women (Rebolledo and Márquez 2000:156, 352).

Men and boys wore animal-skin breeches or wool draw-string pants with wool shirts (*calzoncillos* and *camisa*). Men's hair was worn long, arranged into two braids. These braids were the mark of a good and honorable citizen, for only criminals had short hair—their hair being cut while jailed or sanctioned. Short hair identified a man as an outcast while long braids served as a testament to his superior social and moral standing (Rebolledo and Márquez 2000:173, 260).

Women and girls typically wore long gathered skirts with shirts made in the same manner as the men's *camisa*, except for the ruffle or pleats sewed to the bottom of it for trimming. Maidens wore their hair in one long braid that hung down their backs. After the marriage ceremony, a woman's hair was gathered into a knot and worn on her head. Should a maiden or matron fall from virtue, her hair was cut and she was ostracized as well as persecuted. Consequently, both women and men strove to maintain their long tresses, and many would rather have died than part with their hair (Rebolledo and Marquez 2000:174, 259-260).

Transgressive Behavior

Conventional behaviors appear to be more poignantly demonstrated when individuals fail to practice them. This seems especially true in the oral histories collected from Placitas. In this body of work there are a number of stories that contain warnings as to the effects of bad conduct, many of which were not subtle. Despite the breadth of misbehaviors recounted in the narratives, I will only focus on a few examples to illustrate the kinds of social controls that were in place at San José de las Huertas. Save for a few exceptions, the villagers chastised their aberrant children and dealt with the adults who proved to be social oddities. Chatting (*platicando*) was the primary instrument for correcting faulty habits, as the target of severe gossip was liable to be socially ostracized if he or she did not correct his or her ways (Smith 1973:153). However, more severe forms of punishment are related in the oral historical record.

The wife of one lazy husband who eschewed his family responsibilities was the recipient of sympathy and charity from the community. To assist her in her plight, the woman's uncle prepared her household's fields for planting given that her husband could not ever be found in them. Additionally, their son supported his mother by tending to the animals. However, one day

the son became very ill so the husband reluctantly took over for him. While herding the flocks he encountered a bear. The bear attacked him and he prayed to God and San Antonio to save him. His life was saved and he became a good husband. In another tale, a husband in the village continually feigned sickness to keep from working until an angel came to take him away. In response to the angel's appearance, he claimed that it was not he who was sick and he too became a devoted husband (Rebolledo and Márquez 2000:172-176). In both cases, the men had to be threatened with death in order for them to reform their behavior.

The loss of maidenly virtue was another transgression which warranted community involvement. In the story of Paquita Gurulé and Juan de Aragón, the consequences of disobeying one's parents and defying custom are described. Their tale began about 1800 in the village of Las Huertas when Paquita became of age. As a maiden she could go nowhere without her chaperone. While in public, a maiden was supposed to keep her eyes cast down, her body erect and dignified, and hands clasped together. She was not to speak or even meet the gaze of a man, unless he was a member of her family (Rebolledo and Márquez 2000:248, 261).

Paquita became infatuated with a dashing gadabout who played the violin in a neighboring village. Meanwhile, her father arranged for her to marry Juan, the son of his *compadre* and *padrino* of Paquita. Upon learning of her pending marriage, Paquita realized the terrible mistake she had made sneaking around with the violinist for she really did want to be the wife of Juan. On the day of the marriage ceremony it was discovered that Paquita was no longer a virgin. When her crime became known, the villagers demanded justice. Paquita's hair was cut short and she became a slave in her father's house, to be scorned and punished by every member of her family. What's more, they locked her up in a small compartment of the house until she named her former lover. Under the strain, Paquita named the man who ruined her. Now

knowing his identity, her male relatives pursed him with the help of a few men from a couple of the neighboring villages. When they found him, they cut his hair—but his fate other than this is not remembered (Rebolledo and Márquez 2000:261-268).

In spite of everything, Juan still loved Paquita and wanted to marry her. Juan's father forbade the marriage, but Juan went again his father's wishes and took Paquita as his wife anyway. For breaking with his family in such a manner, Juan's hair was cut as a punishment. Accordingly, the couple lived in the village as outcasts having children that felt the consequences of their parents' indiscretions. The little family could not leave Las Huertas as every other settlement would see their short hair and know them as criminals. Opportunity presented itself in 1823 when the residents of Las Huertas were ordered to leave their village. Seeing their chance, Juan and Paquita took their children and fled into the mountains where they could let their hair grow and, as a result, start a new life (Rebolledo and Márquez 2000:261-268).

The most serious civil offense was to be a bad partner in marriage, as marriage was the single most important social and economic alliance a villager could make. Punishments were severe for irreconcilable offenders, and an adulterous wife could be killed for her bad judgment, though an unfaithful man never received the same penalty. The story of Camila is noteworthy because it shares some similarities with an attempted murder charge documented in the archival record (discussed in greater detail in the next chapter). The complaint was brought against Cristobal Barela and his brother, the former claiming his wife had an affair. An unfaithful wife is central to both events: one detailed in a court case, the other as oral history. Nevertheless, the incidents have different endings.

Long-time friends, the parents of Camila and Ramón arranged for their children to marry. Ramón was indifferent to the union and Camila was set against it for she had fallen in love with

another. But the couple had little choice in the matter as parents held authority over their children, regardless of their age. Because it gave her some happiness in her marriage, Camila indulged her vanity by painting her face and making pretty dresses, in spite of the gossip it garnered throughout the community. Meanwhile, Ramón concentrated on work and his obligations. The couple quarreled terribly and was so unhappy that they finally went to both sets of parents to beg to be allowed to separate. Of course they refused, telling the children to work out their differences. Camila's father even took the pair to be counseled by the priest at San Felipe. Despite this meeting, Camila and Ramón's flights grew more violent as neither wanted to remain with the other. In a final attempt to settle their rebellious children Camila and Ramón's fathers publicly flogged them. Camila could no longer endure her married life. So one day she took her two children and went to her lover in Bernalillo. Together they fled, but an enraged Ramón hunted them down and killed Camila. Despite his brutal act, it appears that he was never punished (Rebolledo and Márquez 2000:281-285).

Synopsis of Community Life

This chapter endeavored to depict the nature of community life at San José de las Huertas by drawing upon archaeological and oral historical source materials. Through the discussion of this data and the ways in which it reveals various aspects of village life, the recursive relationship between agency and structure is exposed. Even though only a small number of persons are distinguishable through these datasets, households (a unit of organization that also possesses agency) are recognizable as are the familial and socio-economic linkages that bound neighbors and community members within this isolated frontier settlement.

Altogether, the archaeological evidence from San José de las Huertas provides valuable information on the lifeways of the villagers who lived there. Corroborating the documentary record and oral narratives, structural remains demonstrate that Las Huertas was a walled village with a *torreón* situated in the northwest corner of the settlement. A cart trail bisected the site roughly along its east-west axis, and a break in the southwest corner of the perimeter wall suggests at least one access point. Domestic structures lined the interior of the perimeter walls while additional houses stood unconnected on the interior. Although the existence of a central plaza is mentioned in the oral histories, there was little indication in the archaeological record that the village was organized around one. Rather clusters of a few houses opened onto smaller shared plazas. As the population grew, and raiding by Navajos decreased, houses were erected outside the village walls.

Most houses were constructed on stone foundations with adobe bricks laid atop. However, one house was built from poured adobe walls, a technique that is associated with pueblo construction. Doorways were small, as were window openings. The presence of concentrations of selenite implies that some windows were covered with this material. Houses had two rooms, a bedroom and a kitchen/living room. The interior walls of these structures were coated in white plaster and the floors were finished with an adobe mud plaster. Adjoining the western wall of the house in Area 8 were the vestiges of a *ramada* where a small number of household animals may have been kept. At least some of the villagers' herd animals were periodically kept within the settlement as is evidenced by the remnants of a corral near northern perimeter wall.

Houses boasted fireplaces or hearths in the corners of the kitchen and living room area. This is where the cooking and most other domestic chores took place. The kitchen also held the

tapanco—a built-in, wooden, cupboard measuring 2 feet (0.61m) deep by 4 to 5 feet (1.22 to 1.52m) high that housed a family's assortment of pots as well as other possessions that were too valuable to be left out-of-doors. Integrated into the wall next to the *tapanco* were storage bins made of adobe that contained corn, beans, peas, onions, and other crops that were tended by the villagers (Rebolledo and Márquez 2000:167, 196). The discovery of a rubbish-filled pit feature suggests that borrow pits were occasionally used for adobe-making materials.

Furnishings were sparse. As such, meals were eaten sitting on the floor in the center of the living room. *Tinajas* (or ceramic pots) held concoctions of meat and beans as well as other foods like milk and cheese. Data from archaeological contexts show that nearly half of the indigenous-made ceramics from domestic structures were utility wares. In fact, ware quantities were similar across most categories with the greatest variability occurring among the burnished wares. And even then the differences ranged from two to five percent. After utility wares, painted or decorated pots comprised the next largest category at approximately a quarter of the ceramics.

Although bowls were slightly more abundant than jars, these two vessel forms had nearly equivalent frequencies within the assemblage as a whole. Alternatively, inter-household comparisons of vessel forms were somewhat challenging given the small number of specimens for certain forms (e.g. soup plates). Both houses in Areas 1 and 2 had more bowls than jars, while the Ferg house and the structure in Area 8 had more jars than bowls. There appears to be no evidence for pueblo-made soup plates or cups in either the Ferg house or Area 2. A fragment of majolica cup was present in Area 2 and the Ferg house yielded eight sherds from majolica soup plates (or brimmed *plato*). Regardless of ware or decorative type, the presence of soup plates and cups, or small bowls, in these houses reveals that these forms were put to use within

all sampled households. Despite some variation in the presence of vessel forms between domestic structures, no statistical difference was perceivable between household assemblages, suggesting that the households examined in this study carried out similar kinds of food preparation and consumption activities.

The villagers of Las Huertas favored decorated bowls over ones that were unadorned. Matte-painted bowls comprised 69% of this form, which differs from the large quantity of plain jars chosen by the villagers, since just 31% of jars were painted. Furthermore, soup plates seemed to function as tablewares because these occurred as either polychrome or burnished wares or as majolica vessels. Cups or small bowls were largely decorated as well, with a little over a third of this form appearing as utility wares. Such trends indicate that Las Huertasanas at least partially selected their ceramics according to how they would have been utilized in a variety of tasks. Utility wares may have been preferred when carrying out such chores as water carrying, cooking, and storage. Alternatively, decorated and burnished jars, bowls, soup plates, and cups would have been chosen for their aesthetic qualities and employed in the serving and consuming of food.

All pots in the Las Huertas assemblage were acquired through exchange and not manufactured by the villagers themselves. Paste analysis demonstrates that the majority (70%) of these ceramics were produced relatively close by—at a distance likely no greater than about eight miles. Tempering materials and recognizable polychrome wares suggest that Las Huertas had the strongest trading ties with Santa Ana and San Felipe Pueblos. And while some vessels may have come from neighboring Indo-Hispano settlements, these have yet to be identified, Bernalillo being the closest village occupied during the entirety of Las Huertas' existence. Pot fragments from Zia and the Tewa pueblos shared quite similar quantities within the assemblage

as a whole. Zia Pueblo is moderately close to Las Huertas (21 miles away), but Tewa ceramics would have had to have been brought to the village from farther distances (the closest Tewa pueblo being approximately 41 miles away). One way in which these ceramics could have come into the hands of the villagers was through their attendance at the trade fairs in Santa Fe.

A small number of ceramics originated from Santo Domingo and Cochiti Pueblos as well as from the Acoma/Laguna area. Like San Felipe, Santo Domingo and Cochiti belong to the Keres language group and are not far removed from San Felipe. Given the strong socio-economic and religious ties Las Huertas had to San Felipe Pueblo, the presence of ceramics from Santo Domingo and Cochiti is not unexpected. Moreover, the connection Acoma and Laguna Pueblos had with the Puname pueblos, as evidenced by the former's emulation of certain decorative styles produced by the latter, may explain how Acomita Polychrome ended up at Las Huertas.

Every household in the village owned some amount of majolica or lead-glazed wares, most of which appear to have originated in Puebla, Mexico. With the exception of one heirloom piece, all are contemporaneous with the settlement and implicate styles common in the 18th and early 19th-centuries. The majority of Euro-American wares in the assemblage could have arrived at Las Huertas during the final years of its occupation; though a few vessels may have entered the archaeological recorded when the area was resettled in the 1830s and 1840s.

Because it was expensive to transport to the northern province of New Mexico, majolica was an indicator of some elevated status. Its pervasiveness at Spanish Colonial sites illustrates that is also served as a marker of Spanish tastes in the New World. Furthermore, its occurrence shows an affinity for Spanish Colonial foodways and etiquettes of eating, as in the drinking of chocolate, for example. The presence of such majolica and Mexican lead-glazed forms as the

taza, *pocillo*, brimmed *plato*, and *jarros choclateros* at Las Huertas reveals that these villagers were familiar with and subscribed to, at least on some level, the polite behavior enacted within Spanish Colonial society.

While decorated lead and tin-glazed dishes from Mexico were procured by the villagers in small quantities, iron and other metal objects were just as difficult to obtain. In order to protect Spain's iron industry, the production of New World iron was extremely limited. As such, the northern colonial provinces' access to metal was very costly and erratic. Like so many other colonists faced with these conditions, the villagers of Las Huertas turned to lithic technology to satisfy much of their tool needs.

Stone tool production was widespread in New Mexico during the Spanish Colonial period. Thus, it was necessary for most people to have at least some knowledge of flaked stone technology, including where and how to acquire the appropriate raw materials. The inhabitants of Las Huertas did not have to travel far to find such resources. These could be found in the ancestral gravel deposits of the Rio Grande that lined numerous river and stream beds. Outcrops near the village, adjacent to Bernalillo, and throughout the Sandía Mountains provided additional places in which lithic materials could be collected. The villagers also took advantage of the abandoned sites in their midst to gain access to the more difficult to procure materials like obsidian.

In order to create the tools they needed, Las Huertasanas used a simple core-flake reduction process that was augmented by the fabrication of small, minimally-retouched tools. This strategy was aimed at producing artifacts with sharp edges that could be employed in a variety of cutting and scraping activities. While flakes were the most dominant artifact type overall, strike-a-lights comprised the most common informal tool in the assemblage, illustrating

the importance of fire-making activities. Formal tools were not as prevalent as other kinds of lithics. Consequently, much of the angular debris was also used for cutting or scraping, but discarded before edge use was significant enough to determine the particular functions of the pieces. Nevertheless, formal tools did include a scraper and three Indo-Hispano-made projectile points. In addition to being made by the villagers, formal tools were retrieved from abandoned sites as well. These salvaged pieces consisted of bifaces, large flakes struck from bifaces, and projectile points.

For the most part, tool use appears to have been restricted to the household and plaza areas as that is where the greatest concentrations of lithics lie. The fact that no measurable difference in material type could be detected between households implies that all villagers had access to the same materials. And while there is some variability in the distribution of artifact types among the domestic areas, these variations are relatively minor and likely attributable to individual preference for certain of tool forms or use patterns than any significant difference in cultural practice.

Regardless, the inhabitants of Las Huertas had particular knowledge of lithic technology and practiced an expedient form of tool manufacture. Moreover, the limited tool variety observed within the assemblage is consistent with other sites in which the occupants relied on domesticates for a considerable portion of their diet. However, Las Huertas does differ slightly from many other Spanish Colonial sites in its lower numbers of chertic artifacts and strike-a-light flints. This trend seems to suggest that the villagers depended more heavily on stone implements for a multiplicity of tasks than did other Spanish colonists, and they used these tools for more than just starting fires.

Although limited in number, the ground stone tools from the Las Huertas collection reflect subsistence and maintenance practices common to other Spanish Colonial villagers in the 18th and early 19th-centuries. Furthermore, the small assemblage of grinding, abrading, and polishing artifacts are consistent with site abandonment behavior. Virtually all of the ground stone tools were damaged and well-used with heavily abraded surfaces, indicating that these implements were intentionally left behind. Manos and a metate fragment were employed in the processing of vegetal materials. Light-weight woodcutting was performed by a chopper, and two heavily-battered pecking stones were utilized in the forming and upkeep of grinding tools. An assortment of polishing stones was used in the plastering of floors, sharpening of metal objects, and the shaping of wood, bone, or stone implements. In addition to being worn, tools were reused and multi-purposed as well. For example, one pecking stone was initially chosen as a core while another stone tool served as both a mano and an abrader.

Faunal remains from San José de las Huertas illustrate that the villagers were largely engaged in Spanish-like behaviors when eating meat. They relied heavily on domesticated animals, mainly sheep and goat. The presence of Bos/Bison remains tells us that some domestic cattle were also consumed. If any portion of the assemblage does contain bison, the meat mostly likely entered the village through trade with Plains groups residing to the east. Just one generic bird specimen was recovered, but eggshell fragments were present in five of the eleven areas excavated. And the only horse, donkey, and/or mule remains were found in the Ferg house; despite a militia inventory from the early 1800s that accounts for 34 horses and three mules. In addition to domesticates, the villagers supplemented their diet with the hunting of some wild deer. The preference for large game species as a dietary constituent may indicate that these native species served as an alternative to sheep, goats, or cattle in New Mexican Spanish

Colonial cuisine. Furthermore, the completeness of many skeletal elements and an overall lack of cut marks on the specimens suggest that animals were perhaps minimally butchered and slaughtered fairly close to where they were used and then discarded—or deposited in the archaeological record (Pavao-Zuckerman, personal communication, 2010). This may mean that an animal (likely a domesticate as wild prey would have been partially dressed at the kill site) was processed in a single episode by and for a particular household. Villagers would not only have desired the meat for eating, but the hide for a variety of products and the fat for tallow.

The acreage surrounding the village and the grant lands that extended into the Sandía Mountains would have provided abundant grazing for the community's herds. Undoubtedly herds were large enough to sustain the villagers year-round, but sufficiently small as to shelter the animals within the village when attacks by the Navajo threatened. Horses, cattle, burros, and/or mules were also kept, but seldom used in farming. They were primarily tasked with the transport of goods, people, and resources like the hauling of wood and conveying farm products to market for trade.

The manner in which the occupants of Las Huertas dealt with the metal shortage that plagued them is evidenced in the archaeological remains as well. The range and quantity of smelting-related artifacts reveals that the villagers were engaged in metal producing and processing activities, specifically the smelting of ores as well as the forging or modification of metal implements. While smelting or metal-working artifacts were recovered from most excavated areas, large concentrations of these materials in a mere three localities suggest that Areas 2, 7, and 9 were loci of metal production and metal working. The preponderance of lead slag (67.2%) in the site assemblage and the presence of smelter remains at the above loci demonstrate that lead smelting was the most prevalent metallurgical process being practiced

within the village. It is likely that these activities were tightly contained and strategically placed given the toxicity of lead residues and fumes to surrounding vegetation and soils.

In spite of the ephemeral nature of smithing activities, forging slag indicates that some forging and reworking of metal did take place within the village. The limited distribution of forging artifacts illustrates that metal working took place on the household level, with perhaps only a few specialists servicing the community. The smelting of locally-available ores occurred on a larger scale. In order to operate the smelter in Area 9, the community would have needed the assistance of multiple households to procure and process the lead ore into a metal of high enough quality to be transported to the province's capital in Santa Fe. However, some ore was probably kept for village use as well—primarily taking the form of lead shot.

The metal objects recovered from Las Huertas are characteristic of an agrarian community with insufficient metal resources. Most of the artifacts were made up of scrap metal that originated from items that were no longer usable but were valuable for their properties as raw materials. About half of the assemblage was composed of iron, seven percent was lead, and the remainder consisted of copper or bronze objects. Recognizable artifacts included fragments of simple hardware (nails and such), a knife blade, thimble, tinklers, buttons, a projectile point, and a jingle off of horse tackle. Few metal objects appeared to have reached Las Huertas, and those items that did were heavily curated or repurposed to fulfill other needs once they had become ineffectual. Small-scale metallurgy was also practiced at the site level to supplement the requirements of the community, and possibly those of the provincial capital as well.

Within the village, glass was even more uncommon than metal. One blue, faceted, rosary bead and 36 small glass fragments comprised the assemblage for this material type. Of these, just eight shards date to the occupation of the village. Only some of these fragments were

unidentifiable to vessel form, and those that were come from bottles. Bottles reaching the remote Spanish colonies would have arrived from Europe via Mexico and were certainly very rare at Las Huertas. Ten other glass fragments could be dated to the mid-19th to early 20th century and are probably associated with the reoccupation of the area after Las Huertas was abandoned. The remaining fragments were much more recent and intrusive to the site.

Collectively, the vestiges of material culture gathered from archaeological investigations at San José de las Huertas were in many ways like those of other Spanish colonial sites in New Mexico. Las Huertas was an agrarian community engaged in animal husbandry. Because metal was scarce, the villagers depended on stone tools to accomplish many of their chores. But they also smelted ores in order to produce metal for use at home as well as for the provincial capital. And while some culinary practices may have been unrecognizable by Spaniards residing in Mexico City, like sitting on a mud floor and eating out of pueblo-made pots, the villagers of Las Huertas clearly had knowledge of and exhibited a few normative behaviors characteristic of polite Spanish colonial society, such as the drinking of chocolate. Yet, these seeming contradictions were evidence of the creolization that was characteristic of many Indo-Hispano communities.

Oral histories from the descendant community that resided in Placitas compliment and add texture to the archaeological data, allowing it to be viewed in different contexts. As a whole, the narratives paint a fairly comprehensive picture of the physical world in which the villagers lived. Moreover, they tell of the less tangible, like kinship relations, gender and age roles, and the ways in which village leaders governed. From this body of information it is clear that corporate labor and kinship ordered the activities that transpired day by day; while Catholicism guided and informed the major events of life. Embedded within these beliefs were

the religious rites and fiestas that drew the community together, solidifying it. Acting in the customary ways likely drew little attention, while exemplary deeds were praised. Transgressive behavior was penalized, and the telling and retelling of such events served as cautionary tales to future generations. These structures worked in concert to create a Las Huertasana that all residing on the land grant could relate to and understand.

Notwithstanding the small sample size of this study (four domestic structures consisting of six rooms, not including the two-room house excavated by Ferg), what is compelling is the relative homogeneity of household assemblages at Las Huertas. The lack of variability between households may have in part been due to the fact that nearly all the inhabitants were related to one another through kinship ties—consanguineal, affinal, or through *compadrazgo*. Where differences did exist in the material culture, these appear to have been the result of personal preferences or a reflection of the larger social networks in which community members were engaged.

For these villagers, it appears that their community identity (as defined by and in relation to their family, friends, and neighbors) outweighed any dissimilarities resulting from *casta* designation assigned to them by colonial administrators or the ancestral background they possessed upon entering the village. This is not to say that no social distinctions existed, but rather ones of class and ethnicity played very minor roles. Instead, oral historical accounts imply distinctions along age, gender and kinship lines, in addition to the knowledge of and expertise in particular skill sets, had a much greater potential to shape one's social identity within the village. Thus at Las Huertas, navigating the colonial middle ground was enabled by homogenization between households and the generation and maintenance of a corporate village identity.

Chapter 5: *Extra-community Interactions*

While the previous chapter examined the internal dynamics of the community at San José de las Huertas, this chapter will take a closer look at the kinds of external contact in which the community members were a part. Two types of extra-community interactions are examined: those that involved colonial officials, both civil and ecclesiastical, and those that pertained to the Pueblos, other Spanish colonial settlements, and the raiding tribes that occasionally moved through the land grant. So as to best characterize the relationships between the Las Huertasanas, their neighbors, and the colonial officials with whom they associated, data from archaeological research, oral histories, and historical documents were employed. An investigation of these various sources will further illustrate that different vectors of social identity were emphasized by colonial administrators and by the villagers themselves when dealing with these individuals who represented the Spanish Empire. The nature of the interactions involving Las Huertas and other communities (whether Native American or Spanish colonial) are more ambiguous. Nevertheless, these were likely informed by a slightly different suite of identity politics.

Engaging with Colonial Officials

The colonial officials with whom the villagers of San José de las Huertas came into contact either represented the secular workings of the Spanish imperial endeavor or the religious ones. Because many of these dealings were recorded as a product of the system of government, much of the evidence for such engagements comes primarily from the archives in which clerical and administrative documents were kept. However, traces of the interactions between Las Huertasanas and bureaucrats are perceivable in the archaeological and oral historical data as

well. Entanglements with secular officials appear to have been somewhat sporadic, occurring when the monarchy felt it necessary to assess and record its holdings, or when the villagers required arbitration on a matter that could not be resolved internally. Conversely, Las Huertasanas had more frequent contact with the clergy owing to the sacramental rites over which they presided, the masses they performed, and the general council they provided for their congregation.

The documentary record also provides some insights as to the social composition of the community. Age, gender, marital status, *casta*, and occasionally profession are noted in various historical documents. While many of these vectors of social identity were seemingly uncomplicated, *casta* designations certainly were not. A somewhat subjective categorization that not only denoted heredity but signaled socioeconomic status as well, *castas* were employed by both civil and ecclesiastical administrators. To better interpret their significance in the documentary record as they pertained to the community of San José de las Huertas, a more general examination of the *casta* system is necessary.

The Sistema de Castas

In New Spain, the *sistema de castas* was the colonial system of classification based upon different proportions of Spanish, Indian, and African blood. In theory, the system determined a person's access to privileges and institutions primarily on the basis of descent. And although this system did not take shape until about the mid-17th century, its origins are inextricably linked to the older notion of *limpieza de sangre*, or purity of blood. The year 1492 saw Spain unified and freed from Moorish rule. In the wake of nationalism that followed, the statutes of *limpieza de sangre*, which had begun to emerge in the previous century, had become codified (Martínez

2007:197). Spanish Catholics were intent on maintaining control of their kingdom and the purity statues were aimed at depriving those with tainted bloodlines access to public and religious offices as well as various honors. The statutes identified two categories of impurity: descent from condemned heretics and descent from Muslims or Jews. Furthermore, concern over the sincerity of Jewish and Muslim conversions (or *conversos*) created an additional divide: that between Old and New Christians (Bustamante 1989:71; Martínez 2007:198). Therefore, one had to obtain a *probanza* (a genealogical investigation to establish biological parenthood and purity from all four grandparents) that certified his or her *limpieza de sangre* in order to hold any secular or religious post.

Due to the importance of the Christianizing mission in New Spain, the Spanish monarchs made the condition of *limpieza de sangre* a prerequisite for traveling to the New World as well. What's more, they ordered colonial officials to ensure that *limpieza* was a requirement for certain professions, offices, and honors. As a result, the concepts of purity of blood and Old Christian ancestry were critical ideological components of the creation and reproduction of the secular and religious hierarchies of the viceroyalty of New Spain almost from the beginning. Such a hierarchy was enforced by various bodies, including *audiencias* (or tribunals), town councils, and religious orders, that gradually adopted formulas similar to those used in the *probanzas* carried out by the Inquisition (Martínez 2007:212-213). These institutions, along with miscegenation, helped to bring about the *sistema de castas*.

Further complicating conceptions of blood purity was the emergence of the *mestizaje* construct (or the mixing of Native American and Spanish peoples and cultures), which became a fact of life shortly after the Spaniards reached the New World. Native ancestry was considered pure as it was free from infidel blood, but the Indians' recent conversion disqualified them from

claiming Old Christian ancestry, at least for a few generations (Carrera 2003:12-13; Martínez 2007; Saíz 1989). At first, the children of one Spanish and one Indian parent were generally regarded as Spaniards and were granted the legal status of such. But as colonial society became established, social and economic privileges became more difficult to secure. By 1530, Spaniards or *criollos* (Spaniards born in the New World) began to distinguish themselves from Indian-Spaniard offspring by creating the *mestizo* label, which was frequently associated with illegitimacy (Carrera 2003:36; Saíz 1989:34).

Another layer of mixing occurred when New Spain began importing African slaves to fill the labor shortage that was created after Spanish law forbade the use of forced Indian labor. Between 1521 and 1594, some 36,500 Black Africans were brought to New Spain, most of whom were males (Bustamante 1989:71; Carrera 2003:36). Largely because of their association with slavery, Africans occupied a different legal-theological status than did Indians within Spanish colonial society. Thus, as individuals of African descent reached free Black status, the Spanish crown saw the need to control the African presence in the Americas through various laws that dictated the trades in which they could be engaged, the materials and other finery that could be worn, and the kinds of marriages that could be made (Carrera 2003:12-13; Katzew 2004; Martínez 2007; Saíz 1989). Owing to such restrictions and the fact that African men had limited access to Spanish women, the label "*mulato*" (the offspring of a Spaniard and Black African) emerged more slowly in the demographic record than did *mestizo*.

These mixtures, and many more, blurred the lines between the categories of Indian and Spaniard as they belonged to neither. Consequently, by the mid-17th century a social system for categorizing people belonging to mixed lineages had evolved. Administrators, friars, and other

writers during the 17th and 18th centuries created 14 to 20 classes of individuals resulting from Spanish, Indian, and Black African unions, all emphasizing the reduction of Spanish blood (see Figure 5-1). The *sistema de castas* was widely used, despite its elaborate nature and the inconsistency with which the *castas* were defined. Studies of archival documents have shown that *casta* categories were remarkably variable, particularly after the level of *morisco* (Carrera 2003:36-37). For instance, an examination of multiple sources illustrates that a *cambujo* child could be the result of nine different *casta* combinations.

Figure 5-1: List of Common *Casta* Designations

General Taxonomy of the *Sistema de Castas* *

NON-CASTAS

1. Español
2. Criollo
3. Other Europeans

CASTAS

1. *Español* e *india*, nace *mestizo*
2. *Mestizo* y *española*, nace *castizo*
3. *Castizo* y *española*, nace *español*
4. *Española* y *negro*, nace *mulato*
5. *Española* y *mulato*, nace *morisco*
6. *Morisca* y *español*, nace *albino*
7. *Español* y *albino*, nace *torna-atrás*
8. *Indio* y *torna-atrás*; nace *lobo*
9. *Lobo* e *india*, nace *zambaigo*
10. *Zambaigo* e *india*, nace *cambujo*
11. *Cambujo* y *mulata*, nace *albarasado*
12. *Albarasado* y *mulata*, nace *barcino*
13. *Barcino* y *mulata*, nace *coyote*
14. *Coyote* e *indio*, nace *chamiso*
15. *Chamisa* y *mestizo*, nace *coyote mestizo*
16. *Coyote mestizo* y *mulata*, nace *ahí te estás*

*Taken from Carrera 2003

Similar inconsistencies occur in the graphic representations of these *castas* as well. When known sets of *casta* paintings (a genre popular during the 18th century in Spain and Spanish America) are compared, as many as 24 castes are illustrated. Like its archival counterpart, the categories begin to breakdown after the level of *albino*—with *albarazado* potentially signifying offspring from eleven different combinations (Saíz 1989). The use of *casta* labels, and hence their meanings, was solidified through their bureaucratic use and their employment in common parlance. Nevertheless, it was the least

mixed groups that were most commonly depicted in paint and written in texts (Katzew 2004; Saiz 1989:22). The designations of *español*, *castizo*, *mestizo*, *morisco*, *negro*, and *indio* are the ones that appear consistently in legal documents in Mexico.

Although there were a number of different versions of the *sistema de castas* described both in text and art (i.e. *casta* paintings), the premise of this genealogy was that a person's blood lineage could be traced and his or her identity labeled. The hierarchy of the *castas* was reinforced with specific associations, which may be seen as the demarcations of *calidad*. Believed to be inherent qualities and attributes of *casta* personages were illegitimacy, impure blood, debasement, criminality, poverty, plebian status, and manual labor. These were contrasted with elite, Spanish characteristics, which included legitimacy, purity of blood, honor, law-abidingness, wealth, and nobility (Carrera 2003:37).

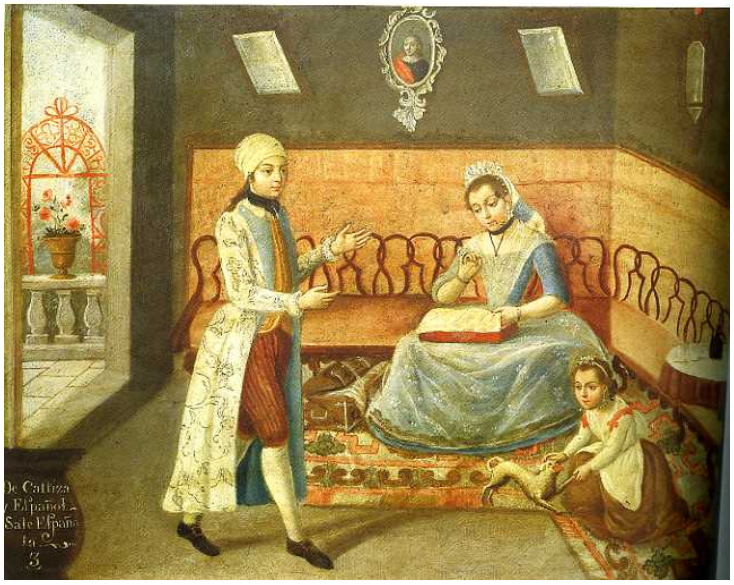


Figure 5-2: ***3. De castiza y español, sale española*** (Castiza and Spaniard Makes Spaniard), Ramón Torres, ca 1770-80

Numerous edicts, laws, and ordinances of the 1750s through the 1790s refer to the general population of New Spain less often as *castas* and more often as people marked by *calidad* and class (Carrera 2003:48). The word *calidad* appears in numerous 18th-century documents, from works of fiction to legal documents such as royal decrees and edicts. Translatable as "quality" or "status", *calidad* is more precisely understood as the differentiating,

defining, and ordering of the diverse people who inhabited New Spain by kind or type. "Calidad represented one's social body as a whole, which included references to skin color but also often encompassed, more importantly, occupation, wealth, purity of blood, honor, integrity, and place of origin" (Carrera 2003:6). Thus, being the *calidad* of *mulato* was not solely associated with darker skin or other physical characteristics; it also aligned a person to certain diagnostics, such as debased social and moral traits. Likewise, the *calidad* of Spaniard was manifested not by light skin color alone but also by a certain lineage and concomitant social and moral attributes.

Figure 5-3: ***No. 4. De español y negra. nace mulata***
(From Spaniard and Black, a Mulatta is Born), Andrés de Islas, 1774

The significance of *calidad* can be illustrated in the case of Doña Margarita Castañeda, who resided in Mexico City during the 18th century. In September 1789, Don Cristóbal Ramon Bivian claimed that his wife's baptism, that of Doña Margarita, was written in the wrong record book. Her name was listed in the *libro de castas* (or *libro de color quebrado*) instead of the *libro de españoles*. Concerned with his children's future access to the rights and benefits as befit a colonial Spaniard, Don Bivian brought the matter to the attention of the courts. During the trial that ensued, three priests who knew Doña Margarita for a number of years and Petra Pozos, a free Black woman who cared for her since she was a child, testified that Dona Margarita was Spanish not only by birth (i.e. her parents were known to be Spanish), but in comportment as

well. Accordingly, Priest Linarle's stated that she "*tenida y reputada públicamente por tal Española*" (was considered and reputed publically to be a Spaniard) (Carrera 2003:2-6).

In other words, she dressed, spoke, and acted as a Spanish woman should in Colonial Mexico. Given the testimony of the witnesses, Doña Margarita was declared "*de calidad de española*." The ruling is only reinforced by the fact that Doña Margarita never appeared in court on her own behalf, as it would not have been appropriate for a proper Spanish woman to present herself in the public buildings where the courts were housed. Moreover, it was not necessary for her to be there for, as the case demonstrates, it was Dona Margarita's social body that was being assessed (Carrera 2003:6, 14). Therefore, *calidad* in the 18th century was the construct through which the complex web of discourses on physical associations (including *limpieza de sangre*) and assessment manifested itself into applied labels.

Thus far, the focus has been on how the *sistema de castas* operated in the colonial core of Mexico. Although based on the same ideology, it is probable that the system functioned somewhat differently in a frontier province like New Mexico—not being employed in the manner in which civil and ecclesiastical authorities in colonial centers had initially intended. The Spanish Crown required all of its subjects to acculturate in the sense that they were expected to speak Spanish, obey the same laws, adhere to Catholic beliefs, fight the same enemies, and exhibit other culturally standardizing behavior. As with other areas of New Spain, the close cultural contact that occurred on the northern frontier caused ethnic boundaries to become blurred—muddling the *casta* system and making it ineffective.

To begin with, the colonists that returned to New Mexico with Diego de Vargas after the Reconquest were a varied group. In an examination of the 187 new colonists occupying New Mexico in 1693, 27 of the 67 family units (or 40%) were either *castas* or "dark-skinned"

Spaniards. Furthermore, the 1695 muster roll listing additional recruits for resettlement shows that the 141 persons who enlisted were classified as follows: 30% *español*, 39% *mestizo*, 11% *coyote*, 11% *mulato*, 2% *lobo*, and 1.5% *castizo*. Of the 24 married couples, ten were exogamous unions. Nevertheless, a study of marriage partners from Albuquerque's 1750 census reveals that *españoles* and *indios* tended towards endogamy while those belonging to the *castas* were just as likely to be exogamous as endogamous (Bustamante 1991:146, 150). It is possible that such preferences can only occur where populations are large enough to support them.

Because so many settlers were not identified by *casta* in 18th-century New Mexico, it has been suggested that this lapse was a result of the colonists belonging to more acceptable *castas*, like that of *mestizo*. This assumption is supported by the importance placed on being Spanish as families who claimed that category would have made certain that the friars noted their status in the clerics' records. However, this was not always the case since some friars seemed indifferent to recording *casta* designations. Priests were consistent only when listing Indians, perhaps preferring to emphasize their successful missionizing activities. Or maybe the friars took for granted that a village knew the social class to which a family belonged, not bothering to list the *casta* unless it was *español* or *indio* (Bustamante 1991). Such biases in recording are further evidenced in the 1790 census of New Mexico which illustrates that the nomenclature used to describe *castas* depended on the individual census-taker.

Textual data from New Mexico suggests that *españoles*, whether truly *criollos* or self-ascribed, were almost always identified, as were *indios*. Meanwhile the *casta* designations utilized by civil and ecclesiastical authorities in the province lacked the scope of those found in central New Spain, but the following terms have appeared in the historical record: *mestizo*, *mulato*, *coyote*, *morisco*, *lobo*, *chino*, *genízaro*, and the broader label *color quebrada* or "broken

color" (Bustamante 1991; Horvath 1977). Regardless, the vast majority of individuals were not identified as to *casta*, but were merely known as *vecinos*, or *vecinos* (literally translated as neighbor) from a particular place (i.e. *vecino* de Las Huertas). *Vecino* clearly identified those who were considered full members of Hispano society, even though the term's exact meaning referred to a resident and citizen of a specified town who possessed the rights associated with that residency (Bustamante 1991; Frank 2000).

As could be seen in the data from Mexico, the meaning associated with a particular *casta* label was somewhat subject to the time period and place in which it was used. Analogous to its use elsewhere in New Spain, *mestizo* signified that an individual's parents were *español* and *indio*. But by the 18th century, *mestizo* had lost its specific one-to-one meaning and referred to general mixing between the two groups (Spanish and typically Mexican Indian). *Coyote* was another term used with some frequency in New Mexico that had a broader meaning than that specified in the *sistema de castas*. It usually denoted a person of mixed Spanish and Indian (usually from New Mexico) or African lineages. *Mulato* was sometimes used with its original connotation and other times it was used by the friars to indicate a mixture of Spanish and Indian ancestry. Although the exact meaning of *color quebrado* is contested, it alluded to a mixture of Spanish, Indian, and African blood or any combination of

Figure 5-4: ***De español y de indía, mestiza*** (From Spaniard and India, Mestiza), Miguel Cabrera, 1763

the three. Similarly, *lobo* signified general racial mixture (Bustamante 1991; Magnaghi 1990:89-90).

Genizaro was an oft-used designation that had a vastly different meaning in colonial New Mexico than it did in other parts of New Spain. The chroniclers and diarists who wrote about the province employed a specific definition. It referred to those ransomed nomadic Indians and their children who had been Christianized and Hispanicized in settlers' homes as servants. Yet, it was not until these Indian servants had worked off the sum paid for their ransom and they were free to leave their masters' households that they became known as *genízaros*. During their servitude these individuals were simply listed in the documents as Indian servants. Like other social categorizations in Spanish colonial society, the *genizaro* label had particular qualities (or *calidad*) attached to it. These differing valuations are revealed in the writings of the Spanish chroniclers as they moved through this northern frontier. Some accounts describe *genízaros* as being lazy, no account thieves that lie and cheat; while others praise their industry, bravery, and skill in battle (Horvath 1977; Magnaghi 1990)

In contrast to this characterization, the Franciscan record keepers used a broader operational definition of *genízaro*. Not only could it signify ransomed captives, but Pueblo Indians who were residing outside of their home pueblos were often lumped into this category as well. Moreover, the children of unions in which at least one parent was a *genízaro* were also labeled as such. Given that *genízaros* as a group were primarily made up of newly acculturated Indians, they were occasionally considered Catholic neophytes and *indios*, and thus did not constitute a legal *casta* category (Bustamante 1991; Horvath 1977; Magnaghi 1990). As such, they commonly occupied the intermediate space between Spanish-speaking colonists and Indians. The ambiguity of their social position at times resulted in *genízaros* being listed with

the Indian tribes of New Mexico as well as being grouped with the residents of the Spanish colonial towns in which they lived.

Baptismal, marriage, and burial registers, along with other church records for the first half of the 18th-century, reveal that New Mexico's mission priests made no great effort to record the specific *casta* to which an individual belonged. *Español* and tribal affiliations appear with the greatest regularity in the documents, but there is a lack of consistent classification for the *castas*. However, when *casta* was noted in the church documents, the records show that the colonial population of New Mexico was largely exogamous. Recording the *casta* of brides and grooms was more common after 1750, but many persons were still not ethnically categorized. Since most friars were also responsible for the villages surrounding their missions, they conscientiously included the name of the village in which a person was a resident (or *vecino*). Consequently, this classification was used more frequently than was *casta* terminology. Listing the village in which an individual resided was helpful to the friars in identifying persons properly and in distinguishing between individuals with the same name. Occasionally, physical descriptors (like "a scar over his left eye") and *casta* label were also used to supply proper identification (Bustamate 1991:146-147).

Signs of the Colonial Enterprise

The colonial apparatus, or perhaps more accurately its policies, was visible in some material ways. The physical layout and organization of a Spanish colonial village not only helped to structure community life, but was a reflection of the colonial enterprise. From the beginning, the Spanish Empire was concerned with the layout and appearance of their settlements, for they provided tangible symbols of territorial possession. Thus, it was important

that Spanish settlements be physically and spiritually identified with the cultural origins of their founders, in addition to reflecting the sociolegal order of the Empire. They were, in essence, to be a continuation of Spain in America. And while economic and strategic needs did determine the location of many settlements, there was still a recognition on the part of colonial officials to organize cities and villages with respect to the Royal Ordinances of 1583, which regulated the founding of settlements based on a variety of characteristics: including access to adequate resources, suitable climate, defensibility, and ingress and egress by land and/or sea (de Zendegui 1977).

Consequently, colonial policy, as dictated through the regional seat in Santa Fe, required that San José de las Huertas, as well as other land grant settlements, be built in a very specific manner. Indeed, the provincial governor in Santa Fe granted the land at Las Huertas to the founding families

> on the condition that they make the settlement in accordance with the provisions of the sovereign royal laws, forming a plaza with houses of adobe in such a manner that each house shall have its corral to receive livestock, leaving in the circumference of the plaza ground sufficient for the opening of the streets should the settlement increase, no one of the settlers being permitted to build a house outside of the plaza, in order that in the aforesaid all may unitedly defend themselves from any hostile invasion. Furthermore, said settlers shall till the cultivable lands that according to the distribution may belong to them, sowing and planting wheat and corn and other vegetables and setting out fruit trees (SANM I, SG# 144, Roll 26, Frame 940).

Geophysical survey and archaeological excavation at San José de las Huertas confirmed that the village was walled, and that houses were spaced loosely along the perimeter walls with open spaces at the center of the settlement, presumably where a central plaza or smaller plazas would have been. An opening in the southwest corner of the perimeter wall and the presence of a cart road suggest some limited access to the village.

Despite the conformity implicated in the archaeological record, there is evidence that the villagers broke with one stricture of the gubernatorial instructions since at least two structures were conclusively identified as being built north of the walled-village. It seems that some families chose to live outside the protection of the village walls during times of comparative peace and as the population of the settlement expanded (Ferg 1984:71).

One condition of locating a buffer community within the frontier zone of New Spain was that it be self-sufficient as most of these settlements were too remote to rely on Santa Fe for supplies or defense. As a result, the villagers of San José de las Huertas had to provide their own protection. In addition to the adobe wall that encircled the community, the construction of a *torreón* in the northwest corner of the village allowed for sentinels to warn its inhabitants if intruders approached from the direction of the Rio Grande. Furthermore, Militia Muster Rolls from Las Huertas offer a glimpse as to the quantity and kinds of weapons the villagers had at their disposal. According to these documents, which dated to about the turn of the 19th century, the community claimed 23 mounted militiamen (possessing 34 horses and three mules) armed with 15 guns and 19 lances between them. Another 31 militiamen, who lacked their own mounts, owned a total of 26 bows and arrows, 25 lances, and five guns (SANM II, Roll 10, Frames 182-189).

A concern for the defense of the province and its settlements is further hinted at in a circular that was sent to the Alcaldes of Alameda, Las Golondrinas, and Taos in 1818. It requests the extraction of five or six loads of metal from the leads mines in the locality of Las Huertas to offset the government's shortage of bullets. The order was to be filled immediately so that the enemies of the state who insult it could be chastised ("*para castigar los Enemigos al Estado que lo insultan*") (SANM I, Roll 6, Frame 365). Archaeological data in the form of a

smelter, smelting debris, and lead slag from Las Huertas proves that the villagers were processing locally-available lead ore. While some of the finished product was probably kept for use within the village, the rest was undoubtedly sent to Santa Fe.

It was customary for the Spanish imperial government to regularly collect taxes from its subjects. We know that the citizens of Las Huertas would have been required to pay taxes, normally in the form of goods like sheep and textiles as coinage was scarce among the villagers. Nevertheless, we have yet to find any documentary evidence of such taxation. The circular requesting the extraction of lead at Las Huertas appears to be the only written reference to any kind of imperial obligation enforced by the regional seat in Santa Fe.

Sacraments and Socio-Religious Life

Because they were men of God whose duty it was to shepherd their flock and ensure the salvation of their souls, the interactions between the clergy and the villagers of las Huertas were surely of a different nature than those magistrates who served as law enforcers, judges, and scribes. Mission priests performed baptisms, presided over marriages, conducted mass, gave last rites, offered advice, counseled the troubled, bestowed blessings, and carried out small tasks like the teaching of one how to sign his name. Nonetheless, priests were also colonial officials accountable to the Church and Crown. As such, they documented their good works in sacramental records and other manuscripts that were safeguarded by the Catholic Church.

The sacramental texts for San José de las Huertas follow a similar pattern with respect to recording *casta* designations as is illustrated by the New Mexico data as a whole. Forty-three marriage records pertaining to the residents of Las Huertas were found in the Archives of the Archdiocese of Santa Fe. The majority of these (34 in number) were recorded at San Felipe

Pueblo. However, two marriages took place at Santa Ana Pueblo, three at Sandía Pueblo, one at Jemez Pueblo, and three in the Villa de Albuquerque. The records date from September 11, 1762 to August 24, 1814 and include not only the villagers who were living at Las Huertas, but the unions of a few of the bride's and groom's parents as well. *Casta* categories are absent in the marriage documents. Just two records list the couples (and their families) being wed as *españoles*, while four records characterize the families involved as *vecinos*. Aside from these six entries, no other designations were used. Witnesses were in attendance at eight of the marriages. And for three couples the witnesses were their *padrinos*. The *padrinos* traveled from Albuquerque for a ceremony at Santa Ana Pueblo, from Bernalillo to Santa Ana to be in attendance, and from Las Huertas to San Felipe Pueblo in the company of the wedding party.

Oral historical data shed additional light on the interactions that the clergy had with the villagers of Las Huertas. Twenty-two stories (or 23% of the narratives) reference dealings with priests. Several of these concern the performing of marriage ceremonies. One young couple demanded from their elders the right to be married. Acquiescing, the father conveyed the wedding party to the priest at San Felipe Pueblo during which time a wedding feast was prepared in the village. Another couple was accompanied by their *padrinos* to the mission at San Felipe to be wed (Rebolledo and Márquez 2000:128, 141).

For some the sanctioning of marriage by the priest was essential, even though village custom likely bound a couple together without the consent of the Church. At a large village dance, a smitten couple publically displayed their intentions by engaging in the *prendario* (betrothal ceremony). As they danced, the lovers exchanged rings signifying that they would soon become man and wife. A few days later they made the trip to San Felipe to be married by the priest. Priestly duties, however, did not end with the unification of a couple. One unhappy

couple (Ramón and Camila) was taken to the priest at San Felipe by the wife's father where the priest reminded them of their duties to one another and implored them to work out their differences (Rebolledo and Márquez 2000:176, 285).

The importance of the baptismal rite is reflected in both the documents and the oral histories. It was said that the priest "advised in all matters, and he rated baptism above all earthly affairs", at least during the Colonial and Mexican Periods (Rebolledo and Márquez 2000:258). The significance of this ritual is born out in the tale of Piedad and Feliciano. After days of being in labor and no child being born, it was clear that mother and child were in danger. Seeking the council of the priest, Feliciano ran to San Felipe to confer with him. Upon telling the priest of his dilemma, Feliciano was commanded to return directly to his wife and child. Feliciano had been given holy water so that the infant could be baptized even though it could not have survived given the length and difficulty of the labor (Rebolledo and Márquez 2000:258). When it was not possible to obtain holy water from the priest, it was the custom of the villagers to bury stillborn infants under the place where the roof of a house drained so that they would be baptized by the waters from heaven. Because "[w]herever there was a birth there must be a baptism" (Rebolledo and Márquez 2000:293). Clearly, community members strove to ensure that their children were baptized, even if it meant an arduous trip to San Felipe Pueblo.

Baptismal records for San José de las Huertas were examined from the mission church at San Felipe Pueblo and span the time period from March 19, 1767 to August 30, 1824. Despite a gap in the documents between January 8, 1779 and May 7, 1804; 255 baptisms were recorded. From these we know that 104 girls and 132 boys were born to 133 couples residing at Las Huertas during its occupation. For 17 births, only the mother was listed as the father was either unknown or not given. There were another four illegitimate children, but both parents were

listed in these cases. One child was considered orphaned as he was left at the door of Julian Barreras. Barreras and his wife, Maria Gertrudis Gurulé, adopted the boy and became his godparents. There is one anomalous record in which the name of the individual baptized is the only information listed. It may be that this person, Manuel Antonio Gallego, was an adult when baptized.

The baptismal records contain more descriptive information as to social category than do the marriage or burial records. Nearly all the entries identify the child being baptized as to place and sometimes to caste. Children "from Las Huertas", for which there was no additional information regarding their social status, or that of their parents, were 191 in number. Of these, 14 were the product of unions that took place out of wedlock. In five records, the presiding priest simply identified the baptized child as being from Las Huertas, but felt it necessary to further label the child's parents. For this subset, two sets of parents (Chavez-Barreras and Chavez-Nieto) were designated as being *españoles* as were the godparents for their children. For another couple, the father is not classified but his wife is noted as being a *coyota*. There were two illegitimate children (or *hijo natural*) whose mothers also warranted additional notation. One mother, Rita, was identified as being a *coyota* of the Gutiérrez family, while Maria Antonia is simply recorded as an *india comparada* (or bought Indian). In all likelihood, Maria Antonia was in the process of transitioning to the *casta* of

Figure 5-5: ***De mestizo y de india, produce coyote***
(Mestizo and Indian Produce a Coyote)
Juan Rodríguez Juárez, ca. 1715

genízara, but had not yet officially earned the title as she was still attached to the household of her purchaser.

Forty "Spanish" children from Las Huertas were baptized at San Felipe Pueblo. Four of these entries listed the parents as being Spanish as well. Perhaps not surprisingly all of the children are legitimate, save for the one orphaned boy that was left in the care of Julian Barreras and Maria Gertrudis Gurulé. Apparently, there was some quality about the child and/or his godparents that earned him that classification by the baptizing cleric. Thirteen children were assigned to the *casta* of *mulato(a)*. Two of the children in this category were illegitimate. One was born to Jacinta Martín who claimed not to know who the father of her child was. Ventura Gurulé and José Ysidro Padilla had another; however, there was some question as to whether or not José really was the father of Ventura's child.

Only two children from Las Huertas were classified as *indios*. Jesus Maria y José was born to José and Maria. The legitimacy of the boy is vague as he is merely listed as their son (or *hijo*) in the record. José and Maria were likely neophytes as they have no last names. Consequently, their son appears to have been distinguished from other boys named Jesus by the addition of his parents' given names to his. The other *indo* boy was the illegitimate product of the union between Cristóbal Pochuca and Antonia Durán. There were two entries for which no village or *casta* data were recorded, but the couples did reside in Las Huertas as their names appear elsewhere in historical documents pertaining to the village.

The significance of the *compadrazgo* (or godparenthood) relationship is also intimated in the baptismal records. The Spanish introduced the Catholic custom of *compadrazgo*, which had both formal and informal associations, to the New World. According to this ritual, a man and a woman other than the natural parents are chosen to sponsor a child at baptism—their spiritual

duty to ensure the child's initiation into the Church. As a result, the *padrinos* (godparents) assume a certain responsibility, along with the parents, for the education and welfare of their *ahijado* (godchild). This spiritual bond is believed to be equivalent to the natural one (Charney 1991; Re Cruz 1996).

In Latin America, the system of *compadrazgo* became more elaborate and flexible, encompassing the ceremonial sponsorship of things and events other than the Christian sacraments. Nevertheless, the perceived moral necessity for the baptism of a child was, and remains, the most substantial (and most binding) reason for the *compadrazgo* relationship. Although of importance, the child is not the only one to benefit from this association as the multitude of social links between the parents and godparents (or *compadres*) is a primary focus of *compadrazgo*. Because of the mutual economic and social assistance of those involved in the network of *compadres*, the *compadre-campadre* relationship may often outweigh the godparent-godchild relationship (Beals 1946; Lewis 1951; Mintz and Wolf 1950; Re Cruz 1996).

> *Compadrazgo*, once accepted by a social grouping, can be moulded into the community way of life by many means. It is a two-way social system which sets up reciprocal relations of variable complexity and solemnity. By imposing automatically, and with varying degrees of sanctity, statuses and obligations of a fixed nature, on the people who participate, it makes the immediate social environment more stable, the participants more interdependent and more secure. In fact, it might be said that the baptismal rite (or corresponding event) may be the original basis for the mechanism, but not longer its sole motivating force (Mintz and Wolf 1950:355-356).

Compadres may be chosen exclusively from within one's own family, or there may be a strong preference for those outside of one's family. The factors couples used in selecting what they considered to be a suitable *compadre* and/or *comadre* are functionally and historically contingent (Charney 1991; Rios 2000). *Compadre* relationships have typically been classified as being either vertical or horizontal. Vertical relationships of *compadrazgo* crosscut socio-cultural or class affiliations, while horizontal ones take place within the confines of a single class (Mintz

and Wolf 1950). Again, the choices made by individuals as to whether they desired *compadres* within or outside of their class (or *casta*) are based on what they deemed most advantageous for the time and place in which they lived.

For example, slaves occupying large coffee plantations in Brazil during the later part of the 19th century preferred to choose other slaves as the godparents for their children—a pattern not followed elsewhere earlier in the century in other parts of Brazil. Rios (2000) suggests that *compadrazgo* would have allowed displaced slaves to construct and validate their own particular identity through the creation and adoption of cultural values, of family and community life, and of horizontal ties of solidarity. Moreover, *compadrazgo* would have provided a kind of stability among slaves who "[i]n a situation of forced coexistence, in the harsh routine of slavery, where unfamiliar elements to the community were frequently incorporated through the purchase of new slaves, dozens or even hundreds of individuals needed to create day-to-day rules of cohabitation that reduced the potential for conflict to acceptable levels" (Rios 2000:292). Although the villagers of Las Huertas did not endure the conditions of African-American slaves in Brazil, living under comparable conditions of stress may have prompted similar decisions when choosing *compadres*. The constant threat of attack by raiding tribes and the concern over producing enough foodstuffs to support a growing village in an ecologically challenging environment would have encouraged community solidarity as members were reliant upon one another for their survival.

The pervasiveness of the *compadrazgo* relationship is signaled in the baptismal texts from Las Huertas. With the exception of the one anomalous record pertaining to Manuel Antonio Gallego, who may have been an adult, all the children have at least one godparent. There are eight children for which only a godmother is named and seven in which only a

godfather is listed. Having one godparent does not appear to be related to social class as two of the Spanish children had a *madrina española*, Margarita Lugarda Valencia, and no *padrino*. Likewise one *mulato* child had a godfather, but no godmother. The remaining 12 children with a sole godparent were simply marked as coming from Las Huertas.

Table 5.1: Relatedness of Couples with Multiple Children from Las Huertas

Godparents who…	Number of Couples	Percent of Couple
Share a last name with the couple	35	65%
Do not share a last name with the couple	19	35%
Share a last name with each other	21	39%
Share a last name with each other and the couple	16	30%

A further examination of the baptismal data may provide some insights as to the kinds of choices parents made when selecting *compadres*.[1] There were 54 couples and two single mothers who had two or more children baptized while in living at Las Huertas. The majority of these parents (65%) chose *compadres* from within their own family (i.e. one or more godparent had the same last name as their godchild's parents) for at least one of their children. In contrast, those parents who had only one child, which consisted of 79 couples and 15 mothers, tended to chose *compadres* outside of their families (or godparents with different last names from their own) 67% of the time. Moreover, it was less common for parents to select *compadres* from within the same family. For instance, Miguel Archibeque and Maria Estefana Lucerco asked Francisco Miera and Maria Christerna Trujillo to be the godparents for their older boy, and chose José Rafael Miera and Maria Soledad Miera as the godparents for their younger boy. Such a

[1] For the purposes of this comparison a few suppositions are made despite the recognition that they certainly were not always true. First, it is assumed that those who share a common last name are related in some way. Second, villagers who do not have the same last name are not related (except perhaps through marriage). Third, the children identified in the baptismal records represent all children born to a particular couple and/or mother. However, families moving into the community undoubtedly brought children of various ages with them—these latter individuals being difficult to identify in the historical records.

preference is more evident in families with multiple children as there were more opportunities for parents to choose *compadres* from the same family.

Perhaps the most telling bit of information gleaned from the baptismal records is that very few siblings shared a common *padrino* or *madrina*. There were only three occasions in which this occurred. Juan José Gurulé and Maria Andrea Balensuela's two children had the same godparents, while two of Nicolas Montoya and Fabiana Gurulé's four children had a common godmother. Not unexpectedly, José Angel Gutiérrez and Maria Jesus García's twins shared godparents as well. However, each one of Maria Nieves Miera's twins (whose father was not known) had his and her own *padrinos*. Because these children lacked a father, it is likely that Maria Nieves preferred to have multiple *compadres* to ensure that she had sufficient support in the raising of her twins.

Ritual co-parenthood bound *compadres* together in a long-term association based on mutual assistance and obligation (Charney 1991; Rios 2000). Thus, the selections made by the parents of Las Huertas are indicative of a strategy that was aimed at securing mutually beneficial relationships. Those couples with one child strove to expand their familial network by choosing *compadres* largely outside of their families. Whereas, parents with multiple children strengthened familial bonds and extended fictive kin connections by selecting *compadres* both within and outside of their families. Because Las Huertas was a fairly small village, parents with several children may have been somewhat restricted in their options for what they considered suitable *compadres*; especially if they limited themselves to those community members to whom they were not related. Furthermore, it was probably desirable for siblings not to share *padrinos* in case a hardship occurred which required the intervention of the *padrinos* on a child's behalf. This way the care of multiple children was distributed across many *padrinos* rather than being

shouldered by a sole *padrino* and *madrina*, minimizing the expense to these fictive kin relations. Such strategies were intended to guarantee the survival of all community members bound by consanguineal, affinal, and ceremonial kinship ties.

Presumably, the majority of godparents to the children of Las Huertas were from the village itself, which meant that community members were chiefly indebted to one another through relationships of mutual obligation. Nevertheless, the archives show that a few *compadrazgo* relationships did extend beyond the town's boundaries. The godparents for a child from the García-Archibeque family were from Bernalillo, while those of a child of the Trujillo-Gurulé family were a Spanish couple from Albuquerque. Some godparents lived even farther away, as one couple (identified as *vecinos*) was from Santa Fe. Moreover, José Antonio Barreras had a transient Spanish godfather from Cordoba, but his godmother was from Las Huertas. There is one description for a brother-sister pair of godparents that seems slightly perplexing. They are noted as being "*vecinos espanoles de Sandía*." Either they truly are *españoles* living in Sandía Pueblo, which would be unusual unless they were associated with the colonial governing of the Pueblo. Or they are Spaniards residing in the administrative district of Sandía on land that is not connected with a particular settlement. While these more distant associations afforded a different kind of security by providing binding connections to members of other communities, these far-off *padrinos* would not have been able to participate in the daily obligations of *compadrazgo*.

Along with their religious responsibilities, the general purpose of *padrinos* was to provide security for the *ahijado(a)* by selecting an additional set of parents who would act as guardians and sponsors of the godchild, care for him or her in the event of an emergency, and adopt the child if he or she is orphaned. At Las Huertas godparents not only served as protectors

to their charges, but they also made sure their godchildren were baptized, they served as attendants or witnesses at wedding ceremonies, they acted as mediators between couples in case of quarrels, and the children of *compadres* were occasionally arranged to be married to one another. Furthermore, it was customary for the *madrinas* to verify a bride-to-be's virginity prior to the marriage ceremony (Rebolledo and Márquez 2000).

Again, it was the responsibility of the *padrinos* to take their godchild to the mission at San Felipe to be baptized as it was too difficult for the newly delivered mother to make the long journey. Following the priest's christening of the child, the godparents sought out a Pueblo woman with a nursing baby and asked her to suckle their charge. In celebration of the event, and after the infant was fed, the Pueblo family invited the little party to share a meal before their return home. After the repast, the godparents hastened to back to the village before the baby needed to nurse again. (Rebolledo and Márquez 2000:256-257).

Performing the last rites upon one's death was another crucial sacrament carried out by mission priests for the villagers of San José de las Huertas. Upon the death of a villager, a *velorio* (or wake) was held by the community before the men of the town prepared the body for the long arduous trip to San Felipe Pueblo. The body was wrapped in a blanket and then secured with leather cording. Placed upon the *escalera* (an apparatus constructed of two long poles between which flat boards were situated), the body was carried on the shoulders of Las Huertasana men to the priest. The funeral procession prayed and sang during their journey, leaving a pile of stones to mark each place they rested along the way. After reaching the chapel and laying the body within, the men went to the cemetery to dig the grave according the priest's specifications. Once the deceased was buried and the ceremony performed, the men returned home with the community *escalera* (Rebolledo and Márquez 2000:305-306).

A total of 94 burial records were documented at San Felipe Pueblo from October 30, 1801 to August 19, 1824. Most of these entries are rather simple, listing the name of the deceased and the date they were buried. The parents or spouse of the person are also common. Occasionally, other pieces of information like *casta*, marital status, age at death, and cause of death were observed. For example, Toribio Chavez (buried in August of 1824) was a *vecino*, married three times, and did not write a will. Twenty-six people were labeled as being either *vecinos* or *vecinos de Las Huertas*—one of whom was an infant. About half as many, 12 in number, were identified as being *españoles*. In one entry, the deceased was not specified as to social category, but her husband was recorded as being a Spaniard. Only one *casta* was noted and that was to identify José Antonio Gallego and his wife as *coyotes*. One man, José Francisco, was documented as originating from the Papago Nation (*adulto de las nacion Papago*). Additionally, Pasquala, who was married to Andrés, may have also been *indios* given their lack of surnames and any other differentiating information. An obscure entry occurs in reference to Rosa Modesta who is distinguished only by her status as an *adulta doncella*, or adult maiden. Three illegitimate children were identified in the burial records; and for two of them, their father was not given. Additionally, Julian Barreras and Maria Gertrudis Gurulé appear as the parents or guardians of another adoptive child, Juana Maria Guadalupe.

Some of the dangers that faced the villagers of Las Huertas are echoed in the burial records as well. The cause of death is listed for just six individuals. One woman expired suddenly as the result of childbirth, while another man died equally as abruptly from a lightning strike. Three men and one woman were killed by Apache or Navajo. For those who died unexpectedly, like by lightning or at the hands of the Navajo, the priest at San Felipe felt it

important to note that these poor souls did not give their final confession and receive the Holy Sacrament.

In addition to performing the religious rituals of marriage, baptism, and last rites, a few other priestly services are described in the oral historical record. Carved wooden *santos* made by the villagers to represent various Catholic saints were taken to the cleric at San Felipe to be blessed. The receipt of a blessing made the *santos* sacred and, thus, suitable for use in religious ceremonies performed within the community. The priest would also travel to Las Huertas for the annual feast day that commemorated the patron saint of San Antonio in order to preside over the religious celebrations associated with the event. The mission priests also appeared to assist the villagers with some minor record-keeping tasks by transcribing important documents (Rebolledo and Márquez 2000:115, 204, 294, 418; Smith 1973:36).

Administrators as Arbitrators and Record Keepers

A handful of secular documents from the Spanish Archives of New Mexico help to supplement information yielded in sacramental texts. Unlike the clergy, civil officials dealt less regularly with the villagers of San José de las Huertas. Record keepers would have traveled to the settlement to perform documentary tasks needed by the colonial government—like census taking, the creation of muster rolls, and reporting on the overall state of the colony. Otherwise, imperial administrators served to arbitrate civil disputes between their subjects on those occasions when they could not be resolved locally. In addition to exposing some of the more significant conflicts that took place among the settlers at Las Huertas, municipal documents shed light on the social composition of the community.

For example, it has been popular perception that the settlement of Las Huertas was established as much by *genízaros* as it was Spanish colonists. Yet when the grant petitions are examined, only one individual (Javiel Gutierres) is actually noted as being a *genízaro* and this is on the original petition of 1765. Moreover, we learn from the resubmitted petition two years later that the not all the heads of households of the 21 founding families were men, but that two were headed by women (SANM I, SG#144, Roll 26, Frames 939-940).

The 1803-1807 Census for the region illustrates some of the social categories (and thus some of the social identities) to which the villagers belonged. When cross-referenced with sacramental records, the census for San José de las Huertas looks as if it was taken closer to 1807 rather than an earlier date. Hence, by 1807 there were a total of 294 people residing in Las Huertas. This sizeable community boasted 62 households comprised of 52 married couples, three widows and six widowers, 38 single men and 28 single women, and 105 children (55 boys and 50 girls) under the age of thirteen. A basic statistical analysis of the census data reveals that the mean age for a villager in 1807 was 17.4, while the median age was 40. With respect to household, the mean size was 4.6 and the median household size was 5.5 (Smith 1973:39; Miscellaneous SANM, Roll 21, Frames 576-579).

Other than the names and ages of the household heads, their spouses, and their dependents, little else is recorded. Marital status (married, single, widowed) was differentially observed. Married couples are implied by listing the male head of household with his supposed spouse beneath him. But widows and widowers were noted by placing a V next to their names. It is only at the end of the census that the married couples are tallied, along with the number of children and widowed spouses residing in the village. As with the correspondence regarding the

petition of the Las Huertas land grant, the census data is fairly ambiguous with respect to the castes to which the villagers were assigned.

Casta or other analogous labels were rarely noted in the census records for Las Huertas. Interestingly, the sole *casta* identified in the census was that of *genízaro*, belonging to household head José Antonio. Three families included Indian (or *india*) women, whom we can assume were domestics, and may have even been war captives at one time. Two of these ladies were elderly at 70 years of age, but the third was considerably younger at 24 years old. Four young people, ranging in age from six to 20, were noted as being *agregado(a)* (Miscellaneous SANM, Roll 21, Frames 576-579). *Agregado* has been broadly used to mean a person who occupies a rural property or house in exchange for performing small jobs, paying a lease, or for free. More simply put, it is a term employed to signify nonrelated household dependents. And though I cannot be certain of its precise meaning in this context, *agregadgo* certainly connoted a much more complicated status.

In her discussion of children's tutelary servitude in Latin America, Nara Milanich (2011) notes that young *criados* (child servants clothed and fed by their masters in exchange for their present and future service to the household) were called by a number of different terms throughout the continent. *Agregado* was one of these appellations. She defines these children's service as tutelary servitude due to the subordinate and exploitative nature of the relationships between the child and his or her master, which were sanctioned under the guise of paternalistic notions of protection and charity. Although a child *criado* supposedly had the protection of and was provided for by his or her master or mistress, these juveniles were not awarded the compensation or the rights, responsibilities, or status of other children in the household recognized as sons and daughters. "In its more benign manifestations, tutelary servitude fed and

clothed poor and orphaned children, inserting them into the patronage networks necessary to subaltern survival. In its less benign forms, it reinscribed patterns of extreme social subordination, producing and reproducing an underclass of dependent, unskilled, and often radically isolated individuals" (Milanich 2011:106).

Despite their subjugated position, these *criados* were not considered property as slaves were. Their status was legally ambiguous since the practice tended to be regarded as a local custom. Moreover, it was the households of the elite that largely engaged in the practice of tutelary servitude. As such, it is difficult to know the full implications of the *agregado* label in the census for Las Huertas because the families that made up this community were of lower socio-economic statuses than many of those living elsewhere in the province. Nevertheless, I think we can make some educated guesses as to what the designation implied. These children were undoubtedly dependents who were either orphaned or forced from their parents' homes for whatever reason and taken in by the households in which they lived. However, it is unlikely that these individuals were gifted, loaned, or rented to the families with whom they were attached—a practice common among elites elsewhere in Latin America (Milanich 2011:108).

In all likelihood these youths were not perceived as being Indian by the census takers, otherwise they would have been labeled as such. This is suggested by various cases studies from South America in which child *criados*, taken from their families and compelled into tutelary servitude, originated from many different ethnic communities (Spanish, Native American, African-American, and so on). Given that the most important criteria in choosing a *criado* were that the child's parents be deceased or unaccountably absent; the parents be considered unfit due to poverty, ignorance, or moral weakness; or if the child was illegitimate (Milanich 2011).

The census data from Las Huertas further exposes part of the internal political structure of the village as well as the province more largely. As general practice, the officials who dealt most closely with villages and Indian pueblos were the *alcaldes mayores* and the *tenientes alcaldes*. The term *alcalde*, followed by a qualifying adjective like *mayor*, *ordinario*, *constitutional*, *de barrio* or *de agua*, appears throughout the colonial documents. Alone *alcalde* is ambiguous as to specific function or duties, but broadly refers to a civil official with judicial, executive, and legislative functions. Appointed by the governor, an *alcalde mayor* was in charge of governing a district. The office was for the life of the appointee unless he retired for health reasons or was removed for misconduct. The main qualifications for the position were that the man be honorable and able to read and write since he had to provide written accounts to the governor. In addition to his judicial powers, the *alcalde mayor* maintained law and order within his district. He was further designated as the *capitán a guerra*, or war captain, because he exercised military functions in the absence of an officer of the regular army—most settlements only possessing militia forces and no regular army. Given the pervasiveness and fierceness of Indian incursion within the province, it was therefore the duty of the *alcalde mayor* to organize local forces in the event of attack (Simmons 1990).

A district (*alcaldía mayor*) was divided into *partidos*, which were lesser units consisting of a single town or Indian pueblo and the lands and settlers adjacent to it. Each *partido* was subject to a *teniente alcalde*, a kind of lieutenant to the *alcalde mayor*. While the *alcalde mayor* established his residence in the principal town of his district, *tenientes* were located in the chief villages of their own jurisdictions. In his *partido*, a *teniente* (sometimes also labeled as a *juez de partido*) settled minor judicial cases verbally, referring important matters to the *alcalde mayor*. Beyond these judicial duties, *tenientes* participated in military campaigns; they assisted superior

magistrates in law enforcement, the collection of taxes and special levies, and the assembling of censuses; and they were to aid in the promotion of the welfare of the Pueblo people (Simmons 1990:167-169, 192).

The Las Huertas census informs us that the *alcalde mayor* for the district resided in this community and was one Don Cleto de Miera y Pacheco, who in fact could read and write as is born out by other historical documents he penned. His lieutenant (*el teniente*) for the village of Las Huertas was Don Juan Miguel Gutierres (Miscellaneous SANM, Roll 21, Frames 576-579). It was perhaps uncommon to have two such bureaucrats residing within the same village as records dating to after Miera y Pacheco's death in 1813 show that the succeeding *alcalde mayor* lived in Alameda (Rebolledo and Márquez 2000:267; SANM I, Roll 2, Frame 1106). Of note are the two households that claimed Indian servants in Las Huertas. They were that of the *alcalde mayor* and his *teniente*. This may have been a luxury afforded them due to their socio-political status.

How the villagers of Las Huertas perceived the men who occupied these roles of authority can be insinuated from the oral historical record. Although *alcalde* is used to refer to both the *alcalde mayor* and the *teniente alcalde*, one can differentiate between the two positions based on the context in which the term is used in a narrative. The *alcalde mayor* tended to be spoken of with respect to the services he performed. For example, Bartolomé Fernández (identified as the Chief Alcalde and War Captain) was the man who oversaw the laying out of the land grant to the founding families and performed the simple ceremony that officially gave them possession of the land. Another *alcalde mayor* took statements for a judicial hearing involving theft over which he would preside. And it was the Alcalde (*mayor*) of Alameda, at the

behest of the governor in Santa Fe, that delivered the command to the villagers of San José de las Huertas to evacuate their town (Rebolledo and Márquez 2000:123, 267, 401).

Described in greater detail are the perceptions and interactions the villagers had with the *teniente alcalde*. These community leaders were chosen for their good judgment and wisdom. They also had to be capable of organizing a defensive strategy for the community to ensure its survival in case of attack. Often sentinels were deployed and a small home guard was always at the ready. Exceptionally skilled *teniente alcaldes* were well-remembered and their exploits retold. Juan Salazar (aka Juan of Tecolote) was one such individual. He was a man with a heavy mustache (a sign of morality) and large imposing stature who was admired not only for his wisdom but for his skills as good farmer, businessman, and leader. Through the story of Francisco Trujillo we learn that the village *alcalde* was a wise man who also kept the track of the annual calendar, announcing the feast days of the community, and advising on planting and harvesting cycles (Rebolledo and Márquez 2000:295, 298-299, 417-418).

Despite the important services provided by the *alcaldes* and *tenientes* for the rural settlers of New Mexico, the governor (or *jefe político*) was the administrator with the highest authority in the province. He trained soldiers and led military expeditions against hostile Indians and generally concerned himself with the overall state of his territory. He administered the government in Santa Fe, made land grants, and dispensed justice. Given his authority, his rulings were nearly always final. Only those who were wealthy and/or well-connected had the ability to bypass the governor and appeal their cases to the officials in Mexico City or the king in Spain (Simmons 1990).

Two lawsuits involving Las Huertasanas demonstrate what happened when disputes could not be settled internally or by local officials. The first on record occurred in 1815 between

Luciano García and the estate of Don Cleto Miera y Pacheco (managed by his wife Doña Maria Catalina Pino). Having settled in Las Huertas in 1796, Don Luciano Garicia spent a number of years building a large, fine house. Wishing to move to El Paso where he could have a more comfortable subsistence, García sold his house and land to Cleto Miera y Pacheco for the price of 200 ewes. However, Cleto died before the sum was paid, but his son Francisco took possession anyway. The matter was placed before the governor who directed the Alcalde of Alameda to hear the dispute and collect all relevant testimony as Las Huertas was under his jurisdiction. Moreover, the proof of the claim was placed on García. Once all the proper documentation was gathered, the governor ordered that the case be decided by the Alcalde of Albuquerque. Part of the tension arose from the fact that García had received another offer to purchase his house and lands in Las Huertas. The offer was from outsiders who were Antonio José (the Apache) and Don Antonio Jiménez, a traveler (SANM I, Roll 2, Frames 1105-1120).

Francisco Miera found himself involved in another lawsuit in 1820. This time the complaint was brought by Maria de la Luz Candelaria in reference to a land sale at a place called San Francisco. According to Candelaria, her husband (Calletano Padilla) purchased a parcel of land at San Francisco from Francisco Miera for the price of one mule and six blankets. After a period of two years, one of Miera's brothers objected to the sale. Maria Candelaria asserts that her husband was poorly treated in the transaction. Upon reviewing Candelaria's complaint, the governor again requests that the Alcalde of Alameda (José Gutiérrez) investigate the matter. Gutiérrez informs the governor that much of what Candelaria claimed was false and that she over stepped her place by trying to insert herself into her husband's business; even though her intentions were to protect his interests. The issue had already been brought to Gutiérrez and was resolved to the satisfaction of all parties concerned prior to Candelaria involving the governor.

Consequently, in the governor's reply to Gutiérrez on the matter, he stressed that the petitioner (i.e. Candelaria) must be made to understand that the authorities must not be deceived. Furthermore, he reminded Gutiérrez that the arbiters who represented each party were to make sure that the person (or persons) they represented understood that a satisfactory resolution had been reached (SANM I, Roll 2, Frames 77-80).

The most salacious record demonstrating outside intervention and mediation by colonial officials is a civil case brought against Cristóbal Barela for attempting to murder his wife, Antonia Teresa Gutiérrez. The *Alcalde Mayor* from Las Huertas, Cleto Miera y Pacheco, acted as a kind of investigator in this case. Moreover, it was his responsibility to collect the testimonies from the major witnesses in the altercation so that they could be reviewed by the governor. In June of 1811, Miera y Pacheco interviewed seven people who had knowledge of the dispute between Gutiérrez and Barela: Antonia Teresa Gutiérrez (the wife), Cristóbal Barela (the husband), Diego Barela (Cristóbal's brother), José Mariano Barela (Cristóbal's brother), Manuel Gutiérrez (Antonia's brother), Augustín Archibeque (witness present at Manuel's house), and Diego Gurulé (witness who arrived to the disturbance with the *teniente*). As part of their testimony, Miera y Pacheco recorded the age, marital status, occupation, and town of residence for each of the witnesses—that is, except for Antonia Teresa Gutiérrez. From this we learn that all the men are Spanish farmers living in Las Huertas, except for Augustín Archibeque who lived in Bernalillo.

It is difficult to decipher exactly what transpired in this case as there are differing accounts informing various parts of the narrative. But we can discern that Cristóbal Barela returned from Albuquerque to Las Huertas where he collected his wife. And, against her will, Cristóbal took Antonia on horseback, in the company of Diego Barela, to the vicinity of San

Felipe. From there, he sent Diego to the pueblo to buy food for them. Upon Diego's return, Cristóbal and Antonia were gone. Cristóbal had taken Antonia to a remote location where he intended to do her harm.

The next thing we know from the testimonies is that Cristóbal and José Mariano Barela showed up at the house of Manuel Gutiérrez to confront him because Cristóbal held him responsible for helping Antonia to have an affair. The two Barela brothers laid siege to Manuel's house where a fight broke out between the three men. Although a couple of lances, a sword, and a knife were involved in the fight, it appears that no one was seriously injured. The noise drew the attention of Diego Gurulé and the *teniente*, who apprehended Cristóbal and José Mariano. Perhaps not surprisingly, both Antonia and Manuel claimed that there was no affair. In contrast, Cristóbal swore he saw a man lying with his wife when he returned home from a trip late one night. Nevertheless, Cleto Miera y Pacheco jailed the two men in Las Huertas. They were to remain there until the governor could determine what justice to execute based upon the evidence collected by Miera y Pacheco (SANM II, Roll 17, Frames 391-403). Unfortunately, we do not know the outcome of the case as those documents do not appear to be in the archive.

One additional document references Las Huertas or its inhabitants. This an 1808 petition by Miguel Mirabal of Las Huertas that relates to a tract land in Alameda left to him by his great grandfather. Evidently, the land was given to the great grandfather by the Crown for the role he played in the resettlement of the province after the Pueblo Revolt. Although this manuscript pertains to matters occurring outside of the village, it reveals the longevity with which some families who occupied Las Huertas had in the region.

Neighbors, Trading Partners, and Raiders

Because several of the encounters that colonial officials had with the villagers of San José de las Huertas were documented in the archival record and recounted in oral histories, we have some understanding of the types of interactions that took place between these two groups. Such relations are not often as clearly defined between the Las Huertasanas and the communities that neighbored them, both friendly and hostile. In order to uncover the associations between these various groups, it is necessary to draw upon inferences made from archaeological data, historical texts, and oral histories. Archaeological evidence speaks to exchanges concerning Las Huertas and several Pueblos, but is seemingly silent on the connections relating to other native groups and Spanish colonial settlements. For this, we must rely on archival and oral historical sources.

Ties to the Pueblos and Other Settlements

At the time San José de las Huertas was established, the closest Spanish colonial settlements were Bernalillo and Alameda. Algodones was also nearby, but did not come into existence until later in the 18th century. Bernalillo is the oldest settlement in this sub-region, founded in 1695 by Governor de Vargas, and Alameda and Las Huertas were partly populated by migrants from this village (Smith 1973:22; 1976:39). Accordingly, some Las Huertasanas were tied to Bernalillo through social and kinship bonds. When Juan Miguel Gutiérrez and Maria de las Nieves Chavez were married in 1786 their *padrinos* from Bernalillo served as their witnesses. In 1810, Manuel Gutiérrez and his wife Rosalia Archibeque chose *padrinos* for their daughter from Bernalillo, as did Juan Gutiérrez and Maria Antonia Chavez eight years later. Additionally, we learn from the civil case against his brother-in-law, Cristóbal Barela, that Manuel had Augustín Archibeque from Bernalillo as a houseguest one evening in the summer of 1811.

Oral historical data suggests that there was occasionally intermarriage between the two villages as well (Robelledo and Márquez 2000:282). Furthermore, stories tell of men from the two communities competing in horse races and of the villagers from Las Huertas attending San Lorenzo Day, the feast day of Bernalillo. Although not known for certain, a few men from Las Huertas may have participated in *partido* contracts (the raising of sheep and goats for a percentage of the flock) with wealthier patrons from Bernalillo, as several men who later lived in Placitas did. Economic connections are also implicated in the tale of Don José Leander Perea of Bernalillo. One winter's day, several of Perea's sheep that were being kept in the Sandía Mountains got caught in a blizzard and froze. He sent word to all those living on the San Antonio de las Huertas land grant that they could have the meat of his frozen sheep as long as they returned the pelts to him (Robelledo and Márquez 2000:145, 192, 211, 314).

Figure 5-6: Section of Miera y Pacheco Map showing Spanish colonial settlements and pueblos near Las Huertas, 1779

Las Huertas had both social and administrative dealings with the settlement of Alameda. Narratives indicate a minor exchange of marriage partners existed between the two communities and that a few individuals even emigrated from Alameda to Las Huertas at the prospect of having more or better grazing lands. Archived correspondences concerning Las Huertas demonstrate that it was the responsibility of the Alcalde of Alameda, following the death of *Alcalde Mayor* Cleto Miera y Pacheco, to settle any disputes that could not be resolved internally. Accordingly, the governor at Santa Fe sent the missive of 1823 that ordered the abandonment of Las Huertas to the Alcalde of Alameda with the directive that his instructions be carried out without delay. Not only was the Alcalde tasked with notifying the villagers of Las Huertas of their removal, but he was to bring them to his jurisdiction and provide them with lands to cultivate. The governor further required that he be informed upon the completion of his orders (Robelledo and Márquez 2000:108, 125, 165, 177, 267, 329).

The connection between Las Huertas and Algodones appears to be more complex. It is said that the people who founded Las Huertas also settled Algodones on land that was purchased from San Felipe Pueblo. Moreover, after the forced abandonment of Las Huertas, many families fled to Algodones where they lived until they could return to the land grant to establish the more recent settlement of Las Placitas. Thus, it is not surprising that many oral historical accounts intimate marriages, familial ties, and friendships between these two settlements. One story tells of how men from Algodones joined men from Las Huertas in the hunt for a young man from Angostura who took the virginity of a Las Huertasana maiden (Robelledo and Márquez 2000:107, 124, 159, 176, 265, 299, 360). What's more, the neighboring villages of Las Huertas, Algodones, and Bernalillo were also linked through hunting activities as men from these

communities would periodically form hunting parties to journey to the Plains to hunt bison—being absent from their homes for as long a few months (Robelledo and Márquez 2000:189).

The principal settlements of Albuquerque and Santa Fe played slightly different roles in the lives of the villagers of Las Huertas. No doubt a result of their proximity, the data give the impression that Las Huertasanas had more personal associations with the people of the Villa de Albuquerque than they did with those from Santa Fe. Sacramental records show that when Juan Trujillo's daughter was born to him in August of 1822, his parents were residents of Albuquerque. The *padrinos* he chose for his newborn daughter were from Albuquerque as well. Additionally, the records tell us that one couple was married in Albuquerque and that the parents of two Las Huertasana grooms as well as one bride were also married there. The perception on the part of Las Huertasanas that Albuquerque was a town that could offer more amenities and a larger social circle when life in the village became too much of a hardship is implicated in the oral historical record (Robelledo and Márquez 2000:129, 258, 268). Apart from its characterization as a haven of sorts, Albuquerque clearly had an administrative function with respect to San José de las Huertas. In the hierarchy of rule, it was second only to Santa Fe in this part of the province. The governor of Santa Fe enlisted the aid of the Alcalde of Albuquerque anytime a weighty situation arose that could not be handled by the *alcalde mayor* alone.

As we have seen, Santa Fe, in its capacity as the regional capital, figured significantly in the administrative lives of the villagers from Las Huertas. Yet Santa Fe was not just a location of judicial service and enforcement. Narratives inform us that inhabitants of Las Huertas took sheep, goats, cheese, goat's milk, and produce to markets in Santa Fe during the summer and fall seasons. The capital was also viewed as place where the wealthy could go to purchase fine goods (Robelledo and Márquez 2000:230, 278, 318, 430). In addition to these economic ties,

familial relationships and those involving ritual co-parenthood (or *compadrazgo*) are also in evidence between Las Huertas and Santa Fe. Born in Las Huertas in March of 1821, José de la Encarnación Baldado's paternal grandparents were residents of Santa Fe. Similarly, José Francisco Sibla's *padrinos* were *vecinos* of Santa Fe.

The Indian pueblos that neighbored Las Huertas also held an important position in the quotidian existence of its villagers. San Felipe, Santa Ana, and Sandía Pueblos were the closest to Las Huertas, but archaeological evidence suggests some interaction with other Pueblos as well. A large portion of pottery found at Las Huertas originated from Santa Ana and San Felipe, indicating that strong exchange networks existed with these pueblos. However, pots manufactured in Zia, Santo Domingo, and Cochiti Pueblos as well as in the Tewa Basin were also recovered from the village site. It seems that San Felipe Pueblo was a place in which the barter in numerous goods occurred. Women wanting to supplement the supplies of their growing families would travel from Las Huertas to San Felipe to trade the blue corn flour and wheat they produced for goats, while others exchanged their goat's milk and cheese for Pueblo corn meal (Robelledo and Márquez 2000:162, 173, 361, 375). Though not described in the texts, trade in textiles probably also took place.

Other socio-economic ties are depicted in the tale of Felicia the *bruja*, or witch. One autumn there was an overly abundant chili crop and Felicia need help harvesting it, but her neighbors could not assist her because they were too busy tending to their own crops. So Felicia went to San Felipe to negotiate for labor. She had no trouble recruiting three Indians to help her as she promised to pay them in chili. Once the work was complete, Felicia insisted the Indians be compensated with peas instead. They were furious at her deception; they quarreled and put a

curse on her. Soon after their leaving, she felt pain in her stomach, and eventually she died (Robelledo and Márquez 2000:245-246).

Further binding Las Huertas to San Felipe Pueblo was the fact that it housed a mission priest to whom the villagers went for baptisms, marriages, burials, and other services. Although a few officially sanctioned marriages took place elsewhere, the preponderance of sacraments occurred at San Felipe. The nature and depth of the connections between these two communities are difficult to completely untangle, but are implicated in the oral historical record. That *padrinos* from Las Huertas could find a wet nurse for their godchild following the baptismal ceremony at the pueblo, and then have a meal with the woman's family, illustrates a particular kind of familiarity among the two groups (Robelledo and Márquez 2000:256-257). Though dating to mid-19th century when Placitas was the principal settlement on the Las Huertas land grant, José Arón Gurulé's story of his scholarly studies shows another way in which these communities were interconnected.

Son of Nicolás Gurulé and Catalina Bustos de Gurulé, a young Arón was under the tutelage of the priest at San Felipe where he stayed in the home of Juan Bustos and earned his keep. Fascinated by the tomes, Arón snuck one book of particular interest out of the church to read in private. Telling all that he was going to visit his parents, he secreted the book home to their house. Upon discovering the volume was missing, a furious mob of Indians from San Felipe arrived in Placitas looking for Arón. Nicolás's brother (Lucas) tried to intervene on his nephew's behalf but was barred by the crowd. The ruckus drew Catalina from her home. Learning of the Pueblos' grievance, she returned the book to their leader and easily diffused the situation with a few words, leaving all unscathed. Even though the relationships are not

explicitly stated, we may ascertain that Catalina was likely from San Felipe herself and that Juan Bustos was a relative of hers and, thus, her sons (Robelledo and Márquez 2000:412-416).

Of note in this story are the relationships that are made explicit as well as those that are implied. As a fellow inhabitant of Placitas, Lucas Gurulé's relationship to his brother is made clear. However, we are left to speculate the precise nature of the relationship between Catalina and Juan Bustos. They must have been related as they shared a last name and Catalina's son was living in Juan's house with his family. Perhaps Juan was her father or brother. Furthermore, Catalina was the one to approach the irate Indians from San Felipe and smooth over the dispute. I imagine that her connection to the pueblo made her uniquely qualified to act as mediator in this contentious situation. Here kin ties within the community are given primacy over those outside of it.

According to Smith (1973:37), there was a fair amount of intermarriage among the villagers of Las Huertas and the peoples of San Felipe, Santa Ana, and Sandía Pueblos in the early days of the settlement. But after about a generation, the village was well established and marriage practices became more endogamous with other Spanish colonial communities. Nevertheless, Las Huertasanas continued to occasionally take spouses from various Native American groups (Rebolledo and Márquez 2000). Social ties to pueblos other than San Felipe are suggested in the archival and oral historical data sets. Four marriage ceremonies involving Las Huertasanas were conducted at Santa Ana and Sandía Pueblos in the 1770s and 1780s. While the narratives do not mention Santa Ana, Sandía Pueblo does figure in several tales. Indeed, the legends of buried treasure collected from Placitas are similar to those told at Sandía. Moreover, one prominent character, Juan Salazar, was unsure as to his heritage but believed his kin were Sandías. Fictive kin relationships are further illustrated in the story of José de Luz who

happened to stumble upon a secret cave filled with Sandía Indians while searching for his lost goats. Though he vehemently claimed to see nothing of import, his life was in jeopardy until he recognized a friendly face. It was his *compadre* and *padrino* of his firstborn son. This relationship saved José's life as his *compadre* convinced the others to let him go. The people of the Las Huertas land grant also had a rather lengthy history of seeking the advice of the *arbolarios* (witchdoctors of sorts) on the cures of various illnesses and on matters pertaining to witchcraft (Robelledo and Márquez 2000: 280, 287, 374, 375, 405-406).

Additional descriptions of social practices were spoken of as being generically Indian but were not always attributed to a particular native group. For instance, the custom of a mother aiding her daughter's large family by taking an older, or the oldest, child to raise as her own was thought to have come from the Indians. In another example, Jesusita Alary, who was a spirited young woman of French descent, gave her first husband an Indian divorce, which was explained as ordering the man from the house and throwing his belongings out after him. The villagers also credited native peoples with teaching the men folk how to set traps in the mountains to catch wild turkey. And the highly thought of Francisco Gonzalez's favorite song was an Indian tune he frequently sung (Robelledo and Márquez 2000:178, 188, 278, 361). These subtle turns of phrases are indicative of the extent to which native cultural practices permeated the lifeways of the villagers from Las Huertas over the years. Although reliant upon one another for survival, the people of San José de las Huertas clearly fostered specific kinds of relationships with both their Puebloan and Spanish colonial neighbors.

A Clear and Present Danger

The threat of attack by marauding Indians posed a very real danger to the villagers of San José de las Huertas. The fortified village with its *torreón* and sentries supply physical evidence of this community's concern for defense. Raids threatened the livelihood of the villagers as stolen livestock (sheep, goats, horses, and burros) and crops undermined the food stores upon which families depended during times of drought, crop failure, or other privations. The specter of death forever loomed as a possibility in any altercation with invaders. Even the loss of one individual weakened the number of people on which they could rely for survival. Moreover, there was the fear that village children could be abducted and pressed into slavery, if they weren't killed in the process. Over a quarter of the stories (27%) collected from the descendants of Las Huertas voice anxiety over Indian incursions.

In one tale four boys were tending some sheep and goats from the village when Indians came upon them. Three hid while one boy stayed behind in an effort to defend the flock with his bow and arrows. The boy went missing and it was assumed that he had been taken away to be a slave. The next day a search party continued their quest for him and discovered his beaten dead body. In another account three boys were dutifully looking after their goats when they spied some Indians. The boys hid, but it did no good as two were found and carried off into slavery (Robelledo and Márquez 2000:117, 132-133). One more story details the tragic events that produced great grief and a thirst for vengeance within the community.

The villagers were in the habit of dividing their flocks into two herds—one comprised of lambs, kids, and the weaker sheep and goats. This herd was looked after by boys. The remaining animals were tended by men and boys alike. One day, nightfall was fast approaching and the boys had not returned. A boy (Jacobe), who was sent to deliver a message to his uncle in

Algodones, had not returned either. Several of the men set out to find the boys. While they were away, the village was attacked by the Navajo. The villagers suffered further loss as the search party could not find one of the shepherd boys nor Jacobe. The shepherd's young companions could offer little information to help their elders as they were afraid to stir from there hiding places for fear that they would be kidnapped. Subsequently, the men found that the shepherd boy had been killed during the Navajo's robbery of the flock, but Jacobe was still missing so they knew he had been captured. Time passed, but Jacobe eventually returned home. He had escaped one evening during an attack on his captors. However, he would always bear the signs of his captivity. In addition to scars on his body, a triangular piece of flesh had been cut from one of his ears to mark him as a slave (Robelledo and Márquez 2000:298-308).

The settlers were not the only ones to fall prey to slavery as native peoples were also taken by Spanish colonists (Brooks 2002). The WPA narratives from Placitas tell of a rich and influential family in Bernalillo that was known to have Navajo slaves on their large hacienda. Miguel Archibeque , born about 1815 and distinguished by his cart-making abilities, was the son of an Indian prisoner of war. And in the depiction of a typical day in the household of Juan, we discover that Juan's father was a Navajo prisoner of war captured by an Armijo family somewhere near Alameda. His father became a trusted member of the family and was given their surname. Additionally, we discern that he married a local colonial woman as it was accepted that Juan also had Spanish blood flowing through his veins. Finally, Pedro Gurulé, who returned from Algodones to live in Placitas years after having to leave Las Huertas, tells of the capture of an Apache warrior. Though he could not remember the specifics, he knew there was some Apache blood in Placitas (Robelledo and Márquez 2000:107, 170, 396, 425).

While the region was plagued by Navajo, Comanche, Apache, and Ute raiders, is uncertain that all these groups attacked Las Huertas. Smith (1973:30) states that the Navajo were the most frequent intruders, but the Comanche occasionally made their way to the settlement as well. The oral histories overwhelmingly single out the Navajo as being the most feared group, or they speak more generically of Indian assaults. The Comanche and Ute are never named, and the only reference to the Apache is the aforementioned captive Apache warrior. Another Apache reference can be found in the archives. In the civil case between Luciano García and the estate of Cleto Miera y Pacheco, we learn that José the Apache and his companion, Don Antonio Jiménez, wished to purchase García's house in Las Huertas (SANM I, Roll 2, Frames 1105-1120).

Sacramental documents offer up additional clues as to the hostile encounters between Las Huertasanas and Native Americans. Most of the burial records from San Felipe Pueblo do not list a cause of death for these colonial residents, but six entries do, and four of those were at the hands of nomadic native groups renowned for their raiding activities. In June of 1810, José Chavez was killed the Apache. And in 1822, three other individuals were apparently killed in an attack by the Navajo. Juan José Montano and his son died immediately at the hands of the "pagan Navajo." While one of their in-laws, Maria Lubina Gurulé (married to José Antonio Montano), died three days later from the many stabs wounds inflicted on her during the attack.

The threat of Indian raids in the Rio Abajo region is further articulated in a communication written to the Departmental Assembly on July 30, 1837. In this text the difficulties that arise from the abandonment of lands by Spanish settlers are outlined, along with proposed suggestions to curb the practice. Although the document draws upon the specific problems that plagued the settlement of Manzano in the jurisdiction of Tomé, it notes that the

settlements of San Antonio de Carnué (jurisdiction of Albuquerque), Las Huertas (jurisdiction of Sandía), and others have faced similar challenges. In several of these places, many of the settlers became terrified due to murders committed by neighboring Indian groups. The fear of some of these people was so great that they abandoned their homes to move elsewhere. The portion of the population that fled caused greater hardship on those who remained because they lost companions in defense and prized agricultural land was left fallow. In order to prevent the settlers from deserting their villages, the officials proposed that those who abandoned their lands, without finding replacement occupants to help in the common labors of the settlement, would lose title to it. Even though this document was written after the ordered abandonment of the San José de las Huertas, it demonstrates the extreme stresses to which the villagers were subject (SANM I, Roll 6, Frames 352-362).

The violence and cultural accommodation experienced by settlements like Las Huertas also carried over into the domain of the sacred. Brooks (2002:1-3) recounts a performance of "Los Comanches" by the residents of Placitas in 1938. In short, *los Comanches* search the houses of the town for the Christ child (represented by a doll) on Christmas Eve. Led by their captain, who has his young daughter in tow, the Comanche overcome the *padrinos* protecting the Christ babe. In turn, the young daughter (La Cautiva) is taken by the men of the village. Following some elaborate processions, the captain negotiates with the village's *mayordomo* for the exchange of the captives. The Comanche receive a number of gifts for the return of El Santo Niño and promise to return again on the village's saint's day or when a *velorio* is held.

This tradition bears a striking resemblance to another ritual practiced in La Madera, a descendant community of Las Huertas, a number of decades earlier. On Christmas day in a house chosen to host the ceremony, the *padrinos* of the Christ child (symbolized by a carved

wooden figure) intently watch over him lying in the nativity scene while all the villagers pay their respects. About midnight the *padrinos* and worshipers feigned sleep. During their respite, a couple of villagers acting as "thieves" sneak into the house to steal the baby Jesus. Afterwards a gunshot sounds awakening the people and spurring the *padrinos* into searching for the child. Once found, it is the responsibility of the *padrinos* to pay a ransom for the return of the Christ babe, thus ending the Christmas ceremony or "game" (Robelledo and Márquez 2000:214-215). While no antagonistic indigenous group is identified in this holiday, it is reasonable to presume that the ritual performed conveys the anxiety the community felt towards the possibility of kidnapping and enforced slavery. In addition, it reinforces the *padrinos* duties of mutual obligation towards their *compadres* and *ahijados*. Such ceremonies demonstrate that the violence experienced by Spanish colonists and natives alike was at least partly resolved in the realm of the scared (Brooks 2002).

Summary

Moving beyond the internal structuration of San José de las Huertas, this chapter investigated the various external relationships in which the villagers were involved. The rich textual and oral historical record for Las Huertas and its descendant community of Placitas, coupled with archeological data, allow for a more comprehensive understanding of rural, colonial life and the socio-economic spheres into which it was drawn in the Spanish Borderland. The strictures of Spanish imperial policy governed the physical layout and organization of Las Huertas as its settlers endeavored to comply with the conditions of living in a buffer community. Muster rolls tell of some of the resources that were utilized by the villagers to provide for their own defense. Certainly, they must have been required to pay taxes, likely taking the form of agricultural products or textiles. Yet, the order issued by the provincial capital for lead extraction from Las Huertas appears to have been the only recorded levy to which the village was held.

A few administrative officials and clergymen comprised the only colonial representatives with whom the villagers of Las Huertas had contact. Mission priests performed the sacraments, conducted religious ceremonies, gave blessings, advised their congregation, and occasionally executed minor clerical tasks. Following the practices of the Spanish Empire, they also documented the social categories to which the Las Huertasanas belonged. At first glance, it seems that *casta* and elite should have been clear-cut categories in the 18th century. However, *casta* identity was elusive and ambiguous, and Spanish identity could be mimicked. Thus, neither category was definitive or conclusive. This is illustrated in the sacramental records from Las Huertas in which *casta* designations were only occasionally ascribed. No doubt the *casta* labels meant something different to the friar doing the recording than it did to the villager.

Españoles and *indios* appear to have been singled out, but these are far from being prevalent. *Vecino* or *de las Huertas* are the more heavily used descriptors in the records. The legitimacy of a person seems to have been another issue to which the local priest drew attention. While illegitimate children were not common, they did occur. Nonetheless, the texts suggest that these boys and girls were accepted into the community as they all had godparents.

The importance of *compadrazgo* (or godparenthood) in creating lasting bonds between families, both within the village and without, is clearly represented. Godparents rarely assumed the responsibility of more than one child within a given family. Consequently, the choices made by Las Huertasana parents and their *compadres* were deliberate, and oriented toward building mutually beneficial relationships. Couples with a single child enlarged their familial connections by choosing *compadres* outside of their families. While parents with more children reinforced familial ties and increased ritual ones by selecting *compadres* both within and outside of their families.

Census records taken by colonial bureaucrats serve to illuminate the social composition of the community by identifying families and their members. At the turn of the 19th century, Las Huertas was home to 294 people living in 62 households with an average household size of 4.6. Caste was rarely listed, but there was one *genízaro* head of household, three Indian women who were probably domestics, and four youths labeled as *agregados*. Las Huertas appears to have housed the *alcalde mayor* for the Alcaldía of Sandía until his death. At which point the Alcalde of Alameda took over the post and its corresponding duties.

Two lawsuits and one civil suit for attempted murder reflect the occasional conflict that occurred within the community. The lawsuits pertained to the lack of payment for an agreed-upon transaction, or a misunderstanding that revolved around a perceived lack of payment. With

the aid of the *alcalde mayor*, both were easily resolved by the governor's directing the involvement of the regional authorities at Albuquerque. More serious was the civil suit in which Cristóbal Barela and his brother were charged with attempted murder. Because we do not have the final ruling of the governor on this matter, it is unclear if these men were charged for the attempted murder of Cristóbal's wife, for the harm the intended towards her brother, or both. Either way, the crime was deemed severe enough by the community to merit outside intervention.

Archival texts and oral histories demonstrate that the villagers from Las Huertas had only sporadic encounters with civil officials, while the clergy developed more enduring bonds. The settlements neighboring the village also had more than a passing association with its inhabitants. Data show that social and familial ties connected Las Huertas to Bernalillo and Algodones, as well as Alameda, Albuquerque, and Santa Fe, to a lesser degree. When necessary, or instructed by the governor in Santa Fe, the *alcaldes* of Alameda and Albuquerque periodically exerted judicial power over Las Huertas. Although Santa Fe represented the final legal authority with respect to these villagers, it served as an economic center as well—a place where Las Huertasanas took their goods to market and where luxury merchandise could be acquired.

The pueblos found in the vicinity of Las Huertas constituted equally important neighbors. Archaeological remains indicate that the villagers from Las Huertas traded with Santa Ana, San Felipe, Zia, Santo Domingo, and Cochiti Pueblos. Whereas, intermarriage and ritual co-parenthood (i.e. *compadrazgo*) among Las Huertasanas and San Felipe, Sandia, and Santa Ana Pueblos created social and kinship bonds. These kinds of attachments to nearby Puebloan people suggest that "ethnic alliances were often negotiated at the local level, however much Spanish

elites might have wished to maintain ethnic differences and political distinctions between their subject peoples" (Brooks 2002:131).

The constant threat of warfare to which the villagers of Las Huertas were susceptible is demonstrated by the violent deaths that were transcribed in the burial records, the muster rolls documenting the arms of the militiamen (i.e. any able-bodied man residing at Las Huertas), the demand by the regional seat for lead shot from mines near Las Huertas, the concern on the part of administrators for the number of instances in which frightened villagers fled their homes, and the ordered abandonment of Las Huertas itself in 1823. Oral histories corroborate this disquiet through narratives of raiding, abduction, slavery, and even death. Nevertheless, a number of these onetime enemies became respected community and family members after being captured and acculturated into the Spanish colonial lifestyle. The amassed relationships in which the villagers of San José de las Huertas were engaged illustrates the complexity of negotiating daily life in 18th and 19th-century New Mexico.

Chapter 6: *Conclusion*

The intent of this work was to consider processes of community formation and maintenance as they are elucidated through structuration, or the dialectical interplay between structure and agency. Communities, as defined in this dissertation (see Chapter 1), are a fitting context for the examination of structure and agency because they are a nexus for face-to-face interactions. Such interactions constitute the principal means by which the rules and resources that structure society are both reproduced and transformed. Furthermore, interactions provide a primary context in which individuals, as deliberate actors, exhibit agency and construct social identity (Varien and Potter 2008). Given that the performance of social identity is a corollary of community formation, the various ways in which it is shaped and expressed offer one avenue in which structuration may be accessed. As a result, this research delved into the myriad of social identities employed by the villagers of San José de las Huertas as they were exhibited within their own community, in their dealings with colonial administrators, through their associations with their Spanish-American and Puebloan neighbors, and in their interactions with the hostile native groups that made incursions on their community and its resources.

More broadly, the initial objective of this project was twofold. The first was to further clarify the nature of buffer communities settled during the 18th century; and the second was to portray some of the ways in which community identity functioned within the fluctuating colonial experience. The earliest colonial occupation of the land grant, San José de las Huertas was a walled settlement situated on a bench above Las Huertas Creek. Several of its adobe houses ringed its edges, sharing a common wall with the one that encircled the village. A *torreón* occupied its northwest corner, a cart trail bisected the site, and a break in the southwest corner of

the perimeter wall may have served as a main entry point. In opposition to oral historical data, archaeological evidence suggests that the two-room adobe houses, with their corner fireplaces, small windows and doorways, opened onto smaller shared plazas rather than one central one (described in Chapter 3). Dispersed among the houses were corrals and/or *ramadas* as well as the occasional smelting or smithing feature. Family garden plots, orchards, and fields surrounded the village and bordered the creek, while common grazing and forestlands made up the remainder of the land grant.

Las Huertas was largely populated by subsistence farmers. Homes were sparsely furnished and possessions were well cared for. Meals were served in ceramic pots and eaten while seated on the plastered floor. All ceramics appear to have been imported into the village and not produced within the community itself. Indigenous-made bowls and jars comprised the most common forms; although soup plates and cups were also used. The villagers had a preference for decorated or burnished tablewares, but utility wares were desired for performing chores like carrying water, cooking, and storage. The use of majolica and/or lead-glazed wares in every household indicates that Las Huertasanas were at least conversant with the polite behaviors enacted within Spanish colonial foodways and etiquettes of eating.

As farmers, the village economy was based on agriculture and animal husbandry. Goats and sheep were the principal herd animals with chickens being kept near the houses. Horses, mules, and burros were used for the transportation of people and goods, but were rarely used for farming. The chief crops produced by the villagers included wheat, corn, beans, and squash; however, onions, chili, and other vegetables were also cultivated. Accordingly, faunal remains show Las Huertasanas consumed mostly sheep and goat in addition to some cattle. This diet was periodically supplemented with the hunting of deer and other game. The tools used to carry out

the range of activities required for the procurement and processing of food stuffs were typically made of stone as metal was expensive and hard to come by. The few limited metal objects that the villagers did possess were heavily curated and repurposed by smithies when they no longer functioned in their original capacity.

The villagers relied upon stone implements to offset their lack of metal resources. Acquiring lithic materials from locally-available gravel deposits of the ancestral Rio Grande and outcrops near Las Huertas, Bernalillo, and the Sandía Mountains, the villagers used simple core-flake reduction techniques to produce readily usable tools. Informal tools predominated formal ones, with strike-a-light flints comprising the most common tool type overall. Tools were typically small and minimally retouched, constructed with the aim of producing sharp edges that could be expediently employed in a variety of cutting and scraping chores. Ground stone tools were utilized in a number of grinding, abrading, and polishing activities. Manos and metates processed vegetal materials, choppers performed light woodcutting tasks, and pecking stones formed and resurfaced grinding tools. An assortment of polishing stones was used to plaster floors, sharpen metal implements, and shape wood, bone, or stone objects (see Chapter 4). The heavily worn and reused condition of the ground stone assemblage as a whole is indicative of the re-modification of spent tools and the orderly abandonment of the village as ineffectual implements were left behind.

To further compensate for the scarcity of metal that could be obtained over the Camino Real, or through local trade, the villagers of Las Huertas engaged in the smelting of locally-available lead ores; although small amounts of copper may also have been produced. Smithing work was probably conducted by a small number of village specialists, but the processing of lead would have required the involvement of many in the community. Ores needed to be mined, fuel

sources gathered, and smelting features constructed. Moreover, smelting activities had to be tightly contained and strategically placed because lead fumes and residues were toxic to surrounding vegetation and soils.

San José de las Huertas was a corporate community. As such, individuals possessed their homes, fields and livestock, but water, grazing land, mineral deposits, and forestlands were owned communally. Corporate labor was harnessed to ensure all agricultural duties were completed, especially during times of harvest. The family (*la familia*) constituted the socioeconomic unit that structured labor and social networks. Women cared for children, prepared food, tended gardens, carried water, spun wool, and wove textiles. Men were responsible for farming fields, shepherding and safeguarding livestock, hunting, and tanning hides. Girls assisted their mothers, and boys tended smaller flocks of sheep and goats. Villagers dressed in simple conservative clothing, with hairstyles signaling social standing within the community. Men wore their hair long in two braids. Similarly, maidens wore a single braid down their backs, but married women piled their hair atop their heads.

In addition to the consanguineal and affinal relations that bound villagers to one another were the fictive kin ties forged through *compadrazgo*. This Spanish custom, somewhat reimagined in Latin America, involved particular individuals and families in the performance of favors or acts of mutual assistance (Charney 1991; Rios 2000). Well over half of the parents from Las Huertas sought *padrinos* for their children outside of their own families. This may have reflected these couples' quests for security though the extension of ceremonial kinship. As a result, the majority of villagers were related to one another. Outside of the kin group, social labor was organized by the *mayordomo* who was tasked with keeping the community's irrigation system in working order. But it was the *teniente alcalde* that had judicial, executive, and

legislative functions over the populace of the settlement to which they were assigned or elected. When disputes could not be resolved internally by the *teniente*, then the *alcalde mayor* (district head) or even the governor of the province intervened.

Community-wide celebrations further linked villager to villager and family to family. The observance of feasts at Easter, Christmas, and San Antonio de Padua Day (the patron saint of Las Huertas) required the participation of every community member. Days were spent in preparation for such festivities, and on the day of the feasts processions of people visited every household. More commonplace celebrations performed at harvest time, in the roasting of corn, and to acknowledge weddings and births only functioned to additionally cement socioeconomic relationships.

The physical layout of the village, its structure, and the control of access points allowed neighbors to keep a watchful eye on one another as well as monitor who came and went from the village. This not only created a safer, more guarded, environment but provided a certain degree of social control. While behavior could be monitored in around the village itself, kinship ties helped to structure activities that occurred largely outside this sphere on the expansive lands of the grant.

When necessary, misbehavior within the village was sanctioned in various ways. Not unexpectedly, children were reprimanded by their elders when they engaged in inappropriate behaviors. As for adults, the punishments differed depending on the social rule that was broken. Gossip served as the primary tool in modifying distasteful behavior, whereas more serious breaches in conduct resulted in social ostracization. Those individuals who committed severe criminal or social offenses, like theft or adultery, were visually marked by having their hair cut—indicating their loss of respectability. Sentences that meted out more physical punishments than

those above were likely not sanctioned, and thus frowned upon, by regional officials. Consequently, the judicial system in Santa Fe dealt with more serious crimes on the rare occasions that they occurred.

Spanish imperial rule impacted the community of Las Huertas in several different ways. The most obvious effect can be seen in the defensive plan of the settlement, with its fortification walls, domestic plots, and plaza areas. Equally evident was the directive issued by the governor in Santa Fe requiring the mining of lead ore for the production of shot, which we know was in desperate need by the colonial army. More ambiguous in its influence is the control that colonial officials exerted over the population of Las Huertas.

Interactions with colonial bureaucrats were infrequent, occurring when it was deemed necessary by the sovereign to assess and record imperial holdings, or when disputes involving Las Huertasanas called for adjudication. Civil servants journeyed to Las Huertas to execute the record keeping tasks needed by the colonial government, including census taking, tax collection, transcribing muster rolls, and to report on the general condition of the province. In contrast, formally filed grievances demonstrate that imperial administrators arbitrated civil disputes between Las Huertasanas on those occasions when they could not be resolved internally. The most immediate authority was the *alcalde mayor* of the Sandía District, one of whom resided in Las Huertas until his death, after which the Alcalde of Alameda replaced him. Should additional aid be needed, the governor recruited the Alcalde of Albuquerque to serve as his proxy.

Despite their more intimate associations, the clerics that catered to the people of Las Huertas also operated as representatives of the colonial enterprise. Accountable to the Church, and their monarch, mission priests recorded their deeds in sacramental texts and other manuscripts. Because Las Huertasanas were practicing Catholics and they lacked a chapel of

their own, as well as the priest to go with it, they had to rely on the mission church at San Felipe to fulfill their spiritual needs. Thus, they traveled to San Felipe Pueblo to receive the major sacraments (i.e. baptism, marriage, and burial rites) that punctuated a person's life cycle. Other duties performed by the clergy for the villagers included the bestowing of blessings, giving advice to their congregation, conducting mass or other rituals during feast days, and the occasional execution of clerical tasks.

In addition to their contact with secular and religious officials, the villagers of Las Huertas were also entangled with their Puebloan and Spanish colonial neighbors. Friendships, social events, and family ties (those of blood and ritual co-parenthood) connected Las Huertasanas to the settlements of Bernalillo and Algodones and, to a lesser extent, Alameda, Albuquerque, and Santa Fe. As the provincial capital, Santa Fe not only had decisive legal authority over Las Huertas, but it functioned as an important economic hub as well, for it provided a significant marketplace to which villagers brought their agricultural products.

Likewise, economic exchanges created linkages between Las Huertasanas and several pueblos. Archaeological data suggest that strong trade relations existed between Las Huertas and Santa Ana and San Felipe Pueblos. However, some trade appeared to take place with Zia, Santo Domingo, Cochiti, and the Tewa Basin Pueblos as well (see Chapter 4). Villagers' intermarriage and *compadrazgo* relationships with San Felipe, Sandía, and Santa Ana Pueblos established additional social and kinship bonds between these groups. And while San Felipe was the place where Las Huertasanas received religious service, some villagers sought guidance on healing practices from the natives of Sandía.

Regardless of the amicable relationships that connected Las Huertas with its neighbors, colonial New Mexico was a perilous place. Consequently, the villagers of San José de las

Huertas were dependent upon one another for their survival, as well as their own defense. Corporate labor was exploited not only to plow and harvest fields and tend flocks, but also to build defensive structures and provide sentries for the village. The community faced raids by nomadic Indian groups who stole their animals or crops, captured their children for slaves, and outright took their lives. The threat of theft became especially ominous in times of drought or crop failure when the food supply was low. The Navajo are singled out as being the main offenders, though Las Huertasanas likely suffered assaults from the Apache and Comanche as well. In spite of such hostilities, some of these people became prisoners of war whereby they entered Spanish colonial households and eventually turned into respected members of their families and the community.

The intra- and extra-community relationships in which the villagers of Las Huertas were enmeshed hint at the complicated social composition of this multiethnic settlement. What's more, the belief that Las Huertasanas were of mixed ancestry is widely held as a truism by the extant descendant population still occupying the grant lands (Oral History, San Antonio de las Huertas Descendants 2001-2003). Yet despite this longtime acknowledgement of cultural diversity, the administrative and sacramental documents for Las Huertas suggest a surprisingly homogenous population. Historical texts, like censuses and sacramental records, describe household composition in terms of age and gender as well as family connections such as parents to children and children to godparents, but the social categories of caste and occupation are noted with less frequency.

Employed by both civil and ecclesiastical administrators, *casta* was a categorization that fluctuated according to the recorder's opinion, one's standing within the community, and ability to speak Spanish, in addition to his or her heredity. Found throughout the sacramental

documents, *casta* designations most commonly occur in association with baptismal records. Nevertheless, such labels were often absent in the documents as a whole, or individuals were simply noted as being a *vecino(a)* de Las Huertas. When caste markers were assigned by the presiding priests, *español(a)* was the most common descriptor given—although *genízaro*, *coyote*, *mulato*, and *indio* were occasionally used as well.

The use of labels, or lack thereof, in the historical record serves to illustrate the tensions that existed between the need of the empire to categorize its subjects with that of the villagers of Las Huertas to create a corporate community upon which its members could rely. Mission priests were the colonial administrators with whom the villagers of Las Huertas had the most contact, and even they had difficulty or could not consistently employ the *casta* system. This challenge is again implicated in the baptism records in which five couples have children assigned to different castes. For example, Francisco Martín and his wife, Maria de Jesus Barela, had five children between 1806 and 1817. Three of the offspring were simply noted as being from Las Huertas, but one was considered to be an *española* while another was a *mulato*.

Even if the clergy were not completely aware of the ancestral backgrounds of their distant parishioners, presumably the villagers were knowledgeable about their neighbors' backgrounds given that the majority of them were related through marriage or *compradazgo*. In the tale "The Fall of Paquita", which happened in Las Huertas and was referenced in the previous chapter, Paquita was described as having long, black, glossy hair and being beautiful like the French women are. Furthermore, it was recalled that her grandfather was indeed a Frenchman. "He came to the Spanish territory of Santa Fe, or into that vicinity about 1720" (Rebolledo and Márquez 2000:262).

Although documents and oral narratives portray certain kinds of social relationships, archaeological remains represent the material conditions that structured, and were organized by, past social practice. In practice, (unequal) relationships between people are reproduced at the same time that food and things are produced, utilized, appropriated, exchanged, and consumed. The relative homogeneity expressed in the material assemblages from the houses at San José de las Huertas is indicative of the interconnectedness of their inhabitants. The recognition of a lack of material difference between ancestors persists in the oral historical record. For instance, when describing the attire and appearance of men and women, some informants stated that "Everyone looked more or less alike" (Rebolledo and Márquez 2000:282). Minor, but discernible, variations in the material culture seem to have been the product of personal preference and/or indicative of the trading partners (or perhaps relatives) outside the community with whom the villagers were engaged.

However, it is not my intent to highlight the relations of obligation and reciprocity common in traditional societies at the expense of the power differentials that structure these same relations. Social differences did exist. Even supposed "egalitarian" societies have social mechanisms for allocating power and prestige. What varies are the ways in which these mechanisms are acknowledged within the public sphere.

> Ideologies of equality can often mask social inequality. Related to this is the problem of conformity. It is often assumed that people's interactions are directed towards social integration, yet this view neglects the fact that people hold multiple roles and identities they access at different times for different purposes. Consequently, communities are rarely stable and monolithic. Rather they emerge as the outcomes of individuals negotiating their interests against preexisting, historically constituted social structures (Preucel 2000:60-61).

Because village occupations were similar and shared, and the kinship ties of *familia* and *compadrazgo* structured socio-economic life, individual status was gained by excelling in the

social manifestations of traditional value orientations—including permanence of residence, size and integration of family into the community, dependability and stability (Smith 1973). For example, village "wise men" were revered for their age, wisdom, or some other unique aptitude. Other community members were held in high esteem, praised, and admired for their special skills, like a woman exceptionally adept at making deerskin clothing, talented woodworker, highly-skilled weaver, or brave hunter (Rebolledo and Márquez 2000). Nonetheless, the *teniente alcalde* and *mayordomo* did hold different kinds of power (like legal authority and the ability to co-opt labor) over the residents.

Scholars have already established that social identity is fluid and can function situationally, particularly in colonial settings (e.g. Díaz-Andreu, et al. 2005; Hall 1990; Jenkins 1996; Voss 2005). This was equally true for the villagers of San José de las Huertas where different vectors of their social identities operated on multiple levels: within the community, with respects to their neighbors, and within the context of the Spanish Empire. At the level of the community, age, gender, religion, and one's position within *la familia* were the aspects of social identity awarded the most significance. Constituting the primary social unit, the village was based on locality more so than tribal or cultural affiliation in much of the Spanish colonies, and later Latin America (Foster 2002). Hence, ethnic affiliations were of less consequence for the villagers of Las Huertas.

Given the harsh and precarious conditions attributed to life in a colonial buffer settlement, Las Huertasana families strove to achieve some security. To do this, and offset the unpredictability of their world, they exploited relationships of family, *compadrazgo*, and friendship in an effort to maximize opportunities and minimize dangers. Both *la familia* and *compadrazgo* represented legitimate forms of support appropriate to honorable men because

their reciprocal nature was socially recognized (Foster 2002). Moreover, the importance of *compadrazgo* (in all of its forms) is underscored by the fact that most historians agree that it served as a societal device for acknowledging mutual obligations (Charney 1991:296).

Community identity (i.e. being a Las Huertasana) was key because it helped to ground and contextualize all other vectors of social identity. It served as a reference point not only for the people who shared it, but also for those with whom Las Huertasanas came into contact—be they Pueblo, other Spanish colonists, or nomadic Indian raiders. Community identity, in conjunction with family affiliation, constituted the most important aspects of social identity operating at the extra-community level since they served to define people from different places in relation to one another. It is more challenging, however, to ascertain which vectors of social identity were employed in the conflicts between Las Huertasanas and the peoples who attacked them. When an invasion was leveled against the settlement as a whole, community identity was undoubtedly of great import. Cultural membership also appears to have been significant. This is implied in the ways that raiders, particularly the Navajo, are described in the archival and oral historical records. Descriptors such as cruel, ruthless, menacing, thieving, ravaging, treacherous, and pagan served to signal different cultural values as well as draw attention to the fact that they were not Catholic (or at least not linked to a mission) like their Puebloan neighbors.

In contrast, colonial administrators seemed to place value on categorizing individuals based upon their caste or socioeconomic status (i.e. *casta*). This was because they needed to continually take stock of their subjects in an effort to assess the progression of the colonial enterprise. But the lack of labels, and the inconsistency with which they were applied, demonstrates the difficulty of classifying people in culturally fluid contexts. As a result, some colonial officials (the clergy in particular) ended up using a person's place of residency as an

identifier. In most situations, Las Huertasanas appeared to be unconcerned with colonially ascribed identities, as evidenced in the sacramental texts. However, when it was necessary for them to deal with the provincial governor, as in the lodging of a grievance or the giving of testimony in a civil matter, they resoundingly appropriated their Spanish identity. The ability to do this was probably facilitated by the fact that the officers collecting the information were almost always the local *alcalde*. Because the *alcalde mayor* resided in the same district, if not the same settlement, he was likely to be connected to or familiar with the people of Las Huertas, and thus more sympathetic to their troubles than officials originating from farther away.

For the inhabitants of San José de las Huertas, the village was the primary site of community production and maintenance as membership was created through discourses about the quotidian practices that encompassed life within a corporate community. Additionally, it seems that identity categories pertaining to socioeconomic status were not manipulated by the villagers for the benefits of upward social mobility (like many other kinds of Spanish settlements), but were rather masked to emphasize a communal identity in spite of the greater freedom to do otherwise. In other words, it was not the foremost intent of Las Huertasanas to try to pass as *españoles*, or as members of more socially acceptable *castas*, in order to receive the potential benefits associated with these rankings; even though they occupied a setting in which colonial administrators would have found it extremely difficult to stop them from doing so. Instead, they chose to utilize kinship (consanguineal, affinal, and godparenthood) relations to build strong bonds amongst themselves, as well as with some of their neighbors, to ensure their survival in this hostile environment

Thus, the community of Las Huertas was constructed through social discourses of difference and similarity among informed and motivated agents on multiple scales—at the level

of the community, with respect to neighboring communities, and under the purview of the Spanish Empire. Furthermore, the negotiation of these discourses is illustrative of the recursive relationship of agency and structure.

> The linkages between the people, what they do, and how they were affected by what they did are the linkages between structure and agency. These people grew up in and/or migrated from a place, a village, a tradition; this is structure. They acted (agency) based on what they knew, on their sense of social and gendered identity, on their position in society (more structure). As a result of their actions (agency), their society continued relatively unchanged, or changes didn't bear fruit, or everything changed (structure), or they or their neighbors did well or suffered (Hegmon 2008:231).

One consequence of the manner in which community was constructed at Las Huertas appears to have been the relative homogeneity present in the material record. As such, we cannot assume that an absence of difference or the expression of similarity among individuals with respect to the material trappings of their daily lives will have a singular cause. Although the villagers were limited to some of the items that they could obtain, their sameness was not simply a result of the lack of access to goods. While all the villagers held more or less the same socioeconomic status, the data reveal that variation did exist among the culture histories of the families that resided there. Rather, it seems that parity in the material record may stem from lateral relationships of reciprocity and obligation as structured through kinship. These relationships helped to dampen social difference, in the sense that differences came to be regarded as dispensable since they could have hindered the formation of the bonds that held families within the community together.

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Appendix A: Auger Tests

Core #	Date	North	East	Diameter	Depth	Artifacts	Description	Munsell
1	July 17, 2002	864.10	2929.78	8 cm	55 cm	3 ceramics	Core 1 was placed 10 meters south of Trench 3 to look for the plaza surface. A soil auger was used to locate the plaza floor, but the soil at the depth of the plaza level was quite damp. A slight change was detected at the floor level; possibly because the compaction of the plaza surface retained moisture. Additional sampling lines were laid in to the west, east, and south of Trench 3, as the plaza surface did not appear to extend to the north.	7.5YR5/4
2	July 17, 2002	873.02	2929.91	8 cm	50 cm	1 ceramic	Core 2 was placed one meter south of Trench 3 to search for the extent of the plaza surface.	10YR5/3
3	July 17, 2002	873.97	2920.04	8 cm	35 cm	4 ceramics	Core 3 was placed 10 meters west of Trench 3 to locate the plaza surface. The core did not go very deep as it hit a rock.	10YR5/3
4	July 24, 2002	873.38	2938.82	8 cm	48 cm	1 lithic	Core 4 was placed 10 meters east of Trench 3 to find the plaza surface. No significant soil change was detected as the soil was probably too moist.	7.5YR5/4
5	July 29, 2002	854.02	2929.56	8 cm	60 cm	None	In an effort to find the plaza surface, Core 5 was placed 10 meters east of Trench 3. The core was located close to the southern perimeter wall and may be out of the plaza area.	7.5YR4/2
6	July 29, 2002	873.98	2909.99	8 cm	57 cm	1 lithic and 1 ceramic	The first core at this location (west of Area 3) hit a rock, so we moved it slightly to the east and found a hard surface about 38 cm deep. At 57 cm deep, the auger tool hit another rock. The compact deposit or surface appears to have started at about 35 cm and ended approximately 50 cm below the ground surface (b.g.s.).	5YR6/4
7	July 29, 2002	874.25	2949.86	8 cm	65 cm	1 ceramic	This was the second core placed east of Area 3. Here the soil is denser, more compact, and contains fewer rocks than that in Core 6. At 44cm deep, the soil became softer and looser. The soil began to get more compact around 60 cm b.g.s and became denser until the termination of the core at 65 cm b.g.s.	7.5YR5/4

Core #	Date	North	East	Diameter	Depth	Artifacts	Description	Munsell
8	July 29, 2002	900.56	2952.29	8 cm	24 cm	None	Core 8 was located in the enclosed rock wall area along the small wall segment that extends to the west. The core was placed here to find potential dung deposits in this area to determine whether or not it was used as a corral. A rock was hit at 24 cm b.g.s. The soil was homogeneous.	7.5YR5/4
9	July 29, 2002	901.88	2958.21	8 cm	55 cm	None	Core 9 was located in the rock wall enclosure near its eastern wall. The soil was soft, moist, homogeneous and brown in color. There was no evidence of yellowish dung deposits.	7.5YR5/4
10	July 29, 2002	911.18	2955.69	8 cm	55 cm	None	Core 10 placed some distance from the north wall of the rock wall enclosure. The deposits here were ashy or contained degraded plaster until about 35 cm deep. Below that, the soil became moister and changed to a greyer ashy matrix. At 55 cm deep, the auger was stopped by a large number of rocks.	upper soil 7.5YR5/4 lower soil 5YR5/3
11	July 29, 2002	924.94	2952.75	8 cm	62 cm	None	Core 11 was situated next to the north wall of the rock wall enclosure. The soil was hard and compact with no noticeable change until encountering an ashy matrix, which lasted between 48-60 cm b.g.s. A soil sample was taken from this coring.	upper soil 10YR5/3 ashy matrix 7.5YR5/4
12	July 29, 2002	868.06	2891.16	8 cm	45 cm	1 ceramic	This core was placed near the southwest corner of the perimeter wall (on the interior) in order to discover where potential midden deposits may have been. The area looked promising as there were no structures near the corner and it appeared unused. This spot is slightly higher in elevation than the surrounding area. The soil is dry, soft, and loose with several rocks. A rocky layer was encountered at 32 cm deep and continued until we halted the coring at 45 cm b.g.s. The upper soil matrix contained little evidence of material culture.	upper soil 7.5YR5/2 lower rocky matrix 5YR5/3

Core #	Date	North	East	Diameter	Depth	Artifacts	Description	Munsell
13	July 29, 2002	872.41	2890.16	8 cm	45 cm	1 lithic and 1 ceramic	Core 13 was also placed near the southwest corner of the walled village (on the interior, opposite Core 12). The soil was moister and more compact near the surface, but became drier and looser about 30 cm deep. Some charcoal was present in this matrix. The soil turned rocky from 30 to 40 cm and became dense with rocks at 45 cm b.g.s. All matrices were homogenous in color.	5YR5/3
14A	July 29, 2002	874.00	2886.51	8 cm	13 cm	None	Core 14A was located outside the southwest corner of the perimeter wall. We hit a rock at 13 cm deep so we moved the core about 55 cm to the west.	7.5YR5/5
14B	July 29, 2002	874.20	2886.18	8 cm	27 cm	1 ceramic	Core 14B had a depth of 27 cm, at which point we came across a dirt and gravel matrix.	7.5YR5/4
15	July 29, 2002	865.23	2889.72	8 cm	27 cm	3 ceramics	Core 15 was placed on the exterior of the perimeter wall in the southwest corner of the village in what had the appearance of a midden. A soil change was found at 18-20 cm deep at which point the soil became very rocky. The upper midden-like deposit was not very deep, perhaps 20 cm at most.	upper soil 10YR5/3 lower rocky layer 7.5YR5/4

Appendix B: Ceramics

Table B1: Attributes Recorded in Ceramics Analysis		
Field	**Description**	**Values**
Provenience	Location of the sherd in which it was recorded	area, northing, easting, level, feature
Sherd size (cm)	Longest measurable span on the sherd	numerical length
Sherd thickness (mm)	Thickness of sherd	numerical thickness
Sherd Weight (g)	Weight of sherd	numerical weight
Vessel fragment	Portion of vessel to which the sherd belonged	rim, body, neck, shoulder, keel, base, footring, handle, rim with lug
Burning	Degree of burning observed on the sherd	burnt, not burnt, partially burnt, vitrified
Ware type	Descriptive types based on techniques used to finish and decorate ceramic vessels	utility, plain, burnished, monochrome, bichrome, polychrome, unidentified
Exterior finish	Recorded observation as to method used to finish the exterior surface of the vessel	missing surface, striated, heavily striated, basket impressed, cross-hatched, indented corrugated, no polish, smoothed, well-smoothed, polished, lightly polished, highly polished, unidentified
Exterior paint	Category used to described whether or not the exterior of the vessel was adorned in any way paint	missing surface, unadorned, washed, slipped, glazed, unidentified
Exterior color	Color(s) of the exterior of the sherd	missing surface, black, white, red, orange, brown, buff, grey, unidentified, and any of the above colors in combination
Interior finish	Recorded observation as to method used to finish the interior surface of the vessel	missing surface, no polish, secondary polish, smoothed, well-smoothed, polished, lightly polished, highly polished, unidentified
Interior paint	Category used to described whether or not the interior of the vessel was adorned in any way	missing surface, unadorned, washed, slipped, glazed, unidentified
Interior color	Color(s) of the interior of the sherd	missing surface, black, white, red, orange, brown, buff, grey, unidentified, and any of the above colors in combination
Temper type	Includes materials intentionally added to the clay or the naturally occurring particles for which the clay source was chosen	basalt, basalt/sand, basalt/tuff, not tempered, pumice/ash, pumice/tuff, crushed quartz, sand, sand/pumice/tuff, tuff
Paint type	Where applicable, the type of paint used to paint a sherd was recorded	mineral, vegetal

Field	Description	Values
Vessel form	Where discernible, the form of the vessel was extrapolated from the sherd	bowl, jar, bowl/jar, soup plate, soup plate/bowl, cup/ bowl
Vessel diameter	The vessel diameter was recorded on sherds large enough to give a relatively accurate estimate	values varied based upon measurements taken
Ware label	For sherds that were large enough to determine decorative motif with some degree of certainty, the historic type name was recorded	ex. Ranchitos Polychrome, Santa Ana Polychrome, Kapo Black, Casitas Red-on-brown, etc.
Notes	Any other attributes deemed significant but did not fall into the above recording fields were added in the notes section of the database	values varied depending on attributes observed and recorded

Table B2: Non-contemporaneous Ceramics

Temper	Utility	Plain	Glaze-Painted	Matte-Painted	Total
Basalt	2		6	4	12
Basalt, sand			4		4
Basalt, tuff				1	1
No Temper			1	10	11
Pumice, ash				1	1
Pumice, tuff				2	2
Crushed Quartz				1	1
Sand	5	1		7	13
Sand, pumice, tuff				1	1
Tuff				3	3
> 2 cm			3	1	4
Total	7	1	14	31	53

Table B3: Utility Wares									
Exterior Finish	Temper								
	> 2 cm	Basalt	No Temper	Crushed Quartz	Pumice, Tuff	Sand	Sand, Pumice, Tuff	Tuff	Total
Heavily Striated	9	12		1		72			94
Wiped	730	99	24	2	9	2000	8	2	2874
Smoothed	6		1			10			17
Micaceous	5		46			6			58
Unidentified	35	1	2		1	26			64
Total	785	112	73	3	10	2113	8	2	3107

Table B4: Plain Wares												
Exterior Finish		Temper										
		> 2 cm	Basalt	Basalt, Sand	No Temper	Crushed Quartz	Pumice, Ash	Pumice, Tuff	Sand	Sand, Pumice, Tuff	Tuff	Total
Slipped	black/gray	1							4			5
	buff							1	1			2
	red				1							1
	white	1										1
Not Slipped	black/gray	102	34		24	3	2	19	232	7		423
	buff/brown	102	24		36	3		30	141	13	1	350
	red	126	47	1	29		2	46	181	51		483
	white	6			2				6	1	1	16
Total		338	105	1	92	6	4	96	565	72	2	1281

Table B5: Burnished Wares

Exterior Finish		Temper									
		> 2 cm	Basalt	Basalt, Sand	No Temper	Crushed Quartz	Pumice, Ash	Pumice, Tuff	Sand	Sand, Pumice, Tuff	Total
Slipped	black/gray	3			4			1	3	1	12
	buff/brown		3		1				5		9
	red	18	6		10		2	5	16	3	60
Not Slipped	black/gray	57	7	1	37	1	1	12	69	6	191
	buff/brown	16	11		9	3		5	26	5	75
	red	20	15		7	2	1	9	23	3	80
	white				1			1			2
Total		114	42	1	69	6	4	33	142	18	429

Table B6: Monochrome Wares

Exterior and/or Interior Finish	Temper									
	> 2 cm	Basalt	No Temper	Crushed Quartz	Pumice, Ash	Pumice, Tuff	Sand	Sand, Pumice, Tuff	Tuff	Total
Red-on-tan	34	14	15	1	1	11	81	13		170
Black slipped	4	1				2	2	3		12
Red slipped	64	17	14	1	3	6	80	9		194
White slipped	85	35	12	1	5	28	108	21	1	296
Tan slipped	6	3	2			3	4	3		21
Total	193	70	43	3	9	50	275	49	1	693

Table B7: Polychrome Wares										
Exterior and/or Interior Finish	Temper									
	> 2 cm	Basalt	No Temper	Crushed Quartz	Pumice, Ash	Pumice, Tuff	Sand	Sand, Pumice, Tuff	Tuff	Total
Black & white slipped	79	56	15	4	5	52	134	41	2	388
Black & red slipped	6		3			4	8	1		22
Red & white slipped	48	39	17	1	11	17	97	16	1	247
White & Buff slipped					1	1		1		3
Black, red, and white slipped	50	101	26	1	5	59	142	40	2	426
Total	183	196	61	6	22	133	382	98	5	1086

Table B8: Ware Category by Area												
Area	Ware	Temper										
		> 2 cm	Basalt	Basalt, Sand	No Temper	Crushed Quartz	Pumice, Ash	Pumice, Tuff	Sand	Sand, Pumice, Tuff	Tuff	Totals
Area 1	Utility	129	39			1		6	362	3		540
	Plain	39	29		6			31	80	41		226
	Burnished	11	7		2	2		3	9			34
	Monochrome	23	19		2		2	12	51	27		136
	Bichrome	13	9		8	1	2	13	35	25		106
	Polychrome	4	16		2			12	16	19		69
	Unidentified	7	1						6	2		16
	Subtotal	**226**	**120**	**0**	**20**	**4**	**4**	**77**	**559**	**117**	**0**	**1127**
Area 2	Utility	32	2		1				136			171
	Plain	7	11		10		1	8	34	3		74
	Burnished	3	3		2	1		1	9	1		20
	Monochrome	5	4		5	1	1	1	21	2		40
	Bichrome	5	8		1			7	13	3		37
	Polychrome		4		1			10	7	2	1	25
	Unidentified	3			1							4
	Subtotal	**55**	**32**	**0**	**21**	**2**	**2**	**27**	**220**	**11**	**1**	**371**
Area 3	Utility	46	25		2				127			200
	Plain	30	13	1	9	1		12	60	11		137
	Burnished	11	6	1	6	1	1	2	19	2		49
	Monochrome	30	10		7		2	9	28	8	1	95
	Bichrome	16	29		3	3	1	15	45	15	1	128
	Polychrome	4	9		2	1	3	13	16	8	1	57
	Unidentified	4			1				1			6
	Subtotal	**141**	**92**	**2**	**30**	**6**	**7**	**51**	**296**	**44**	**3**	**672**
Area 4	Utility	21	7						46	1		75
	Plain	14	3		4			3	12	3		39
	Burnished	3			2			1	4	1		11
	Monochrome	13	1		3		1	3	9	2		32
	Bichrome	7	4				1	5	5	1		23
	Polychrome	3	4		2			1	4	2		16
	Unidentified	3	1					1	1			6
	Subtotal	**64**	**20**	**0**	**11**	**0**	**2**	**14**	**81**	**10**	**0**	**202**

Area	Ware	Temper										
		> 2 cm	Basalt	Basalt, Sand	No Temper	Crushed Quartz	Pumice, Ash	Pumice, Tuff	Sand	Sand, Pumice, Tuff	Tuff	Totals
Area 5	Utility	11	1						17			29
	Plain	4	1						2			7
	Burnished								2			2
	Monochrome	4	2					2	7	1		16
	Bichrome	3	2		1			1	3			10
	Polychrome	3	1					1	1			6
	Unidentified	1										1
	Subtotal	**26**	**7**	**0**	**1**	**0**	**0**	**4**	**32**	**1**	**0**	**71**
Area 6	Plain	1										1
	Polychrome							1				1
	Subtotal	**1**	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**2**
Area 7	Utility	23	9		7				96	1	1	137
	Plain	29	11		11	5		3	32	1		92
	Burnished	4	3		3	2	1		19	2		34
	Monochrome	8	3		4	1		4	8	3		31
	Bichrome	9	3					3	12	3	1	31
	Polychrome	3	6		1			3	4			17
	Unidentified	9							2			11
	Subtotal	**85**	**35**	**0**	**26**	**8**	**1**	**13**	**173**	**10**	**2**	**353**
Area 8	Utility	429	20		61			4	966	1	1	1482
	Plain	162	24		43		3	25	210	8		475
	Burnished	72	16		47		1	25	57	9		227
	Monochrome	94	24		16		2	15	124	4		279
	Bichrome	71	32		18		10	23	108	8		270
	Polychrome	29	49		15		2	18	66	5		184
	Unidentified	20	1		1			2	12	1	1	38
	Subtotal	**877**	**166**	**0**	**201**	**0**	**18**	**112**	**1543**	**36**	**2**	**2955**

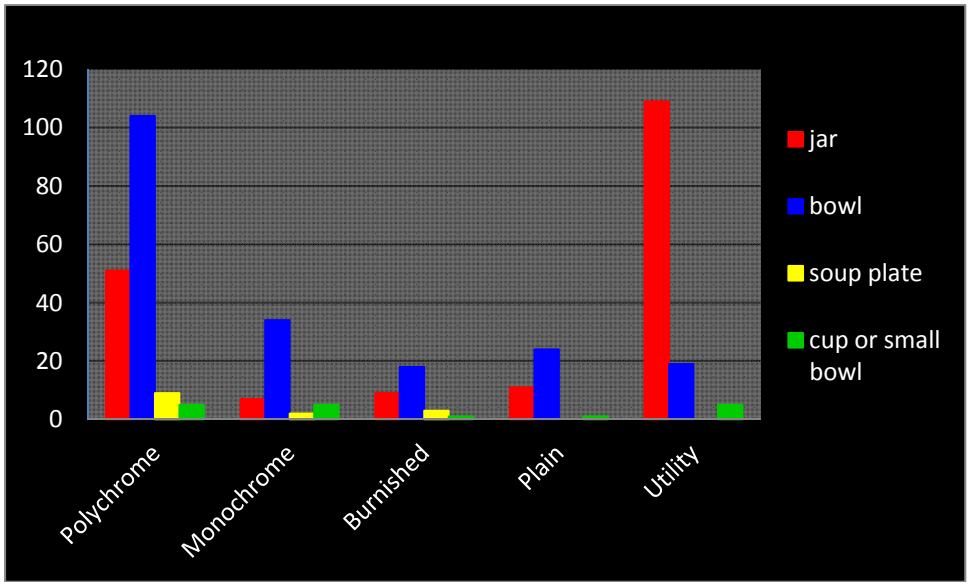
Area	Ware	Temper										
		> 2 cm	Basalt	Basalt, Sand	No Temper	Crushed Quartz	Pumice, Ash	Pumice, Tuff	Sand	Sand, Pumice, Tuff	Tuff	Totals
Area 9	Utility	64	7		2	2			319	1		395
	Plain	38	8		8			9	119	2	2	186
	Burnished	8	4		4			1	20	3		40
	Monochrome	9	3		3	1		4	23			43
	Bichrome	6	2		1	1		5	18	2	1	36
	Polychrome	3	9		1				26	2		41
	Unidentified	6							7			13
	Subtotal	**134**	**33**	**0**	**19**	**4**	**0**	**19**	**532**	**10**	**3**	**754**
Area 10	Utility	10							10	1		21
	Plain	5	1		1			1	6	3		17
	Burnished	1	2		1		1		1			6
	Monochrome	3			1				2			6
	Bichrome	2			1		2	1	1	1		8
	Polychrome	1							1	2		4
	Unidentified	1										1
	Subtotal	**23**	**3**	**0**	**4**	**0**	**3**	**2**	**21**	**7**	**0**	**63**
Area 11	Utility	19	2						26			47
	Plain	8	3					4	7			22
	Burnished	1	1		2							4
	Monochrome	3	2		1				1	1		8
	Bichrome	1	2		2		1	1	1			8
	Polychrome		1		1				1			3
	Subtotal	**32**	**11**	**0**	**6**	**0**	**1**	**5**	**36**	**1**	**0**	**92**
Total		1664	519	2	339	24	38	325	3493	247	11	6662

Table B9: Results of Statistical Tests			
Variables Compared*	Pearson Chi-square (x^2)	Degrees of Freedom (*df*)	Significant
Area by Vessel Form	10.55	6	no
Area by Degree of Burning	52.91	16	yes
Area by Ware Type	274.28	30	yes
Area by Temper Type	442.72	36	yes
Ware Type by Temper Type	1130.77	20	yes

*Area 6 was omitted from all comparisons due to its small sample size (N=2). Also, only jars and bowls were compared because of the limited numbers of other vessel forms found.

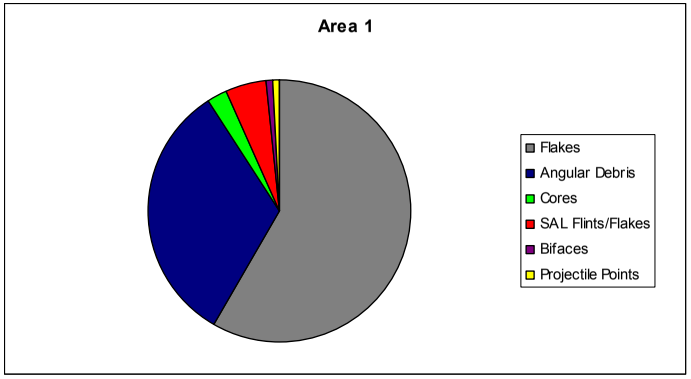
Table B10: Ceramics from Ferg House Fill (Feature 1)							
Origin	Ware	Jars		Bowls		Either	Totals
		Rim	Body	Rim	Body		
Uncertain Origin	Heavily-Striated Plainware					18	18
	Carnué Plain		34		5	424	463
	Casitas Red-on-brown			9	18		27
	Casitas Polychrome			1	2		3
	Blackware, sandy temper		16	5	14		35
Puname	San Pablo/Trios Polychrome	2	15	6	7		30
	Zia underbody sherds		4			9	13
	Ranchitos Polychrome	7	153	13	7		180
	Santa Ana underbody sherds		60			33	93
NE Keres	Kiua Polychrome	5	8	6	3		22
Tewa	Tewa Polychrome		2	2			4
	Powhoge Polychrome	3	7	1	1	3	15
	Tewa underbody sherds					13	13
	Tewa Red-on-buff				1		1
	Tewa Redware		2				2
	Kapo Gray/Kapo Black	4	22	2	10		38
Acoma-Laguna Area	Acomita Polychrome	3	1				4
	Acoma area polychrome				1	3	4
Totals		24	324	45	69	506	968

Figure B11: Number of Vessels per Ceramic Type

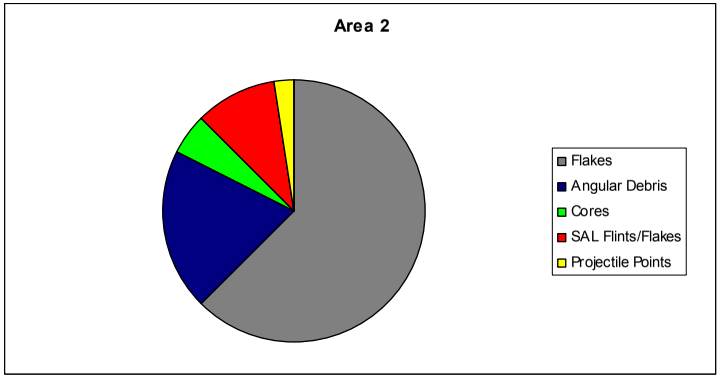


Appendix C: Flaked Stone Artifacts

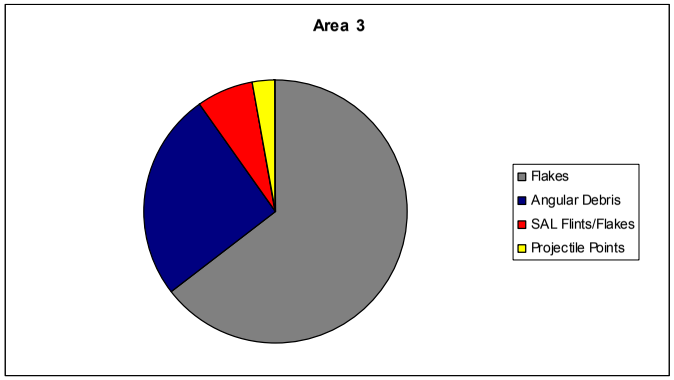
AREA 1											
Material Type	Core Flakes	Biface Flakes	Bipolar Flakes	Angular Debris	Cores	SAL Flints	SAL Flakes	Bifaces	Projectile Points	Scrapers	**Totals**
Pedernal Chert	20			18	2	2	2				44
Chert	4			5		1					10
Obsidian	10			2	1				1		14
Polvedera Obsidian	3										3
Silicified Wood	1			1		1					3
Limestone	4			6							10
Andesite	10	1		1				1			13
Rhyolite	4			2							6
Aphanitic Rhyolite	7			1							8
Quartzitic Sandstone	1										1
Massive Quartz	1			3							4
Basalt	1										1
Igneous Undifferentiated	3										3
Totals	69	1	0	39	3	4	2	1	1	0	120



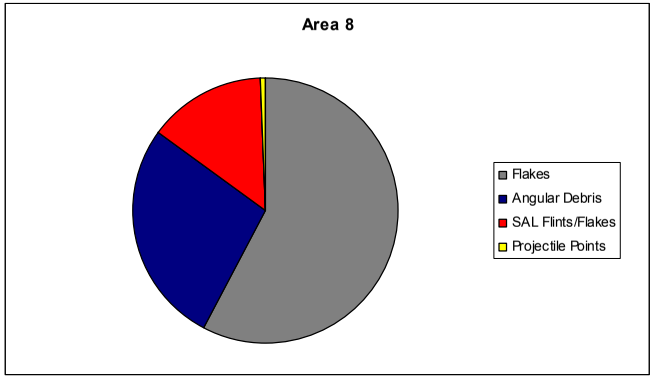
AREA 2											
Material Type	Core Flakes	Biface Flakes	Bipolar Flakes	Angular Debris	Cores	SAL Flints	SAL Flakes	Bifaces	Projectile Points	Scrapers	**Totals**
Pedernal Chert	11			5	1	1	1		1		20
Madera Chert	2					1					3
Chert	1					1					2
Obsidian	4										4
Silicified Wood					1						1
Rhyolite	2										2
Quartzite	2										2
Massive Quartz	1			2							3
Basalt	2			1							3
Totals	25	0	0	8	2	3	1	0	1	0	40



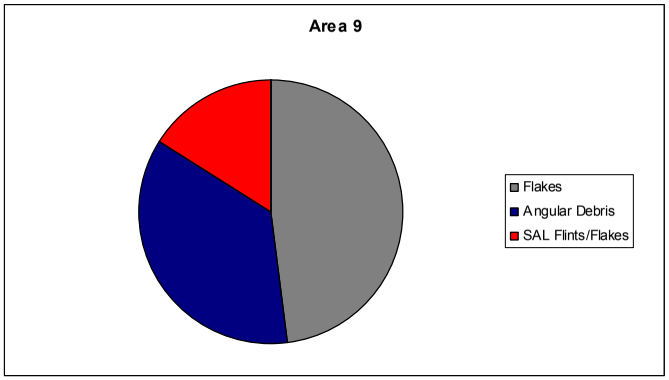
AREA 3											
Material Type	Core Flakes	Biface Flakes	Bipolar Flakes	Angular Debris	Cores	SAL Flints	SAL Flakes	Bifaces	Projectile Points	Scrapers	**Totals**
Pedernal Chert	16			10		3	1				30
Madera Chert	1					1					2
Chert	6			3							9
Obsidian	4		1	4					1		10
Polvedera Obsidian	4										4
Limestone	6										6
Andesite	2	1		2							5
Quartzite	1										1
Massive Quartz	4										4
Basalt									1		1
Unknown	1										1
Totals	45	1	1	19	0	4	1	0	2	0	73



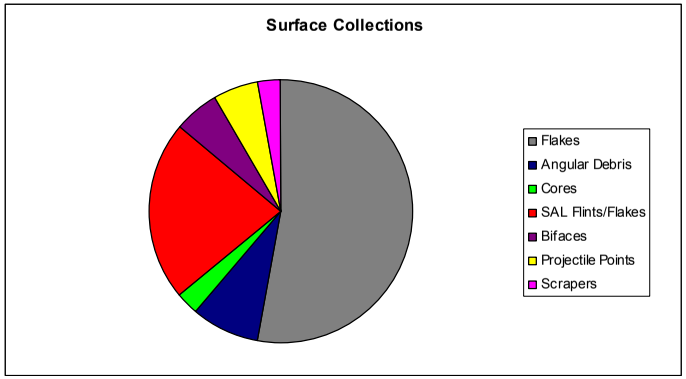
AREA 8											
Material Type	Core Flakes	Biface Flakes	Bipolar Flakes	Angular Debris	Cores	SAL Flints	SAL Flakes	Bifaces	Projectile Points	Scrapers	**Totals**
Pedernal Chert	38		1	26		12	12				89
Madera Chert				2					1		3
Chert	8			7		1	1				17
Obsidian	17			1							18
Polvedera Obsidian	3			1							4
Limestone	12			4							16
Andesite	5			4							9
Rhyolite	1										1
Aphanitic Rhyolite	1										1
Quartzite	4										4
Quartzitic Sandstone				1							1
Granite	1										1
Massive Quartz	11			2							13
Basalt	2			1							3
Totals	103	0	1	49	0	13	13	0	1	0	180



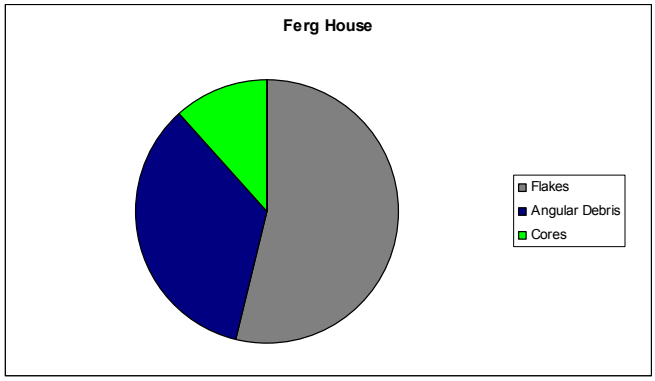
AREA 9											
Material Type	Core Flakes	Biface Flakes	Bipolar Flakes	Angular Debris	Cores	SAL Flints	SAL Flakes	Bifaces	Projectile Points	Scrapers	**Totals**
Pedernal Chert	2			4		4					10
Madera Chert				1							1
Chert	2	1		2							5
Obsidian	1										1
Silicified Wood	1										1
Limestone	2										2
Rhyolite	1			1							2
Massive Quartz				1							1
Basalt	2										2
Totals	11	1	0	9	0	4	0	0	0	0	25



SURFACE COLLECTIONS											
Material Type	Core Flakes	Biface Flakes	Bipolar Flakes	Angular Debris	Cores	SAL Flints	SAL Flakes	Bifaces	Projectile Points	Scrapers	**Totals**
Pedernal Chert	9	1		3		6	1		1		21
Chert	4				1	1		1			7
Obsidian	3							1		1	5
Polvedera Obsidian									1		1
Andesite	1										1
Rhyolite	1										1
Totals	18	1	0	3	1	7	1	2	2	1	36



FERG HOUSE				
Material Type	Flakes	Angular Debris	Cores	**Totals**
Chert			1	1
Obsidian	5	4	1	10
Chalcedony	9	4		13
Quartzite		1	1	2
Totals	14	9	3	26



Appendix D: Ground Stone Artifacts

Table D1: Abrading, Smoothing, and Polishing Tools			
Sample #	**1**	**2**	**3**
Area	8	8	1
North	853	852	885
East	2950	2952	2897
Level	3	3	4
Feature			3
Artifact type	abrader—more likely a smoother	likely polishing stone	polishing stone
Design type	strategic	expedient	expedient
Broken?	yes, one end broken off	yes, spalling on one surface	yes, fragment with no true dimensions
Weight (g)	126.4	28.6	141.2
Length (cm)	9	5	6.5
Width (cm)	2.7	3.4	3
Thickness (cm)	2.6	0.7 to 1.1	5.1
Burning	none	none	yes; cracking due to fire, especially on the ground surface
Material	sandstone	quartzite	quartzite
Material hardness	medium soft	very hard	very hard
Color of material	pink	Black	grey-pink
Previous form	naturally formed cobble with one end shaped by chipping	likely modified from stream pebble	cobble that was ground flat on one side to create a surface
Grain size	fine	very fine	medium fine
Portion of artifact represented	more than half	more than half	less than half
Plan view	rectangular	oval	indeterminate
Cross-section	square	discoidal	indeterminate
Longitudinal section	rectangular	discoidal	indeterminate
Configuration of ends	indeterminate	pointed or curved	indeterminate
Technology of manufacture	pecked and ground	abraded, smoothed	ground, abraded, polished/smoothed
Number of primary use surfaces	two surfaces adjacent to one another	two	one
Other		very smooth; evidence of a little polish, striations in multiple directions	cobble appears to slope (or be depressed) towards the center of the ground surface; flat surface appears to have been used for polishing; very smooth

Table D2: Grinding and Pulverizing Handstones										
Sample #	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**
Area	1	2	7	8	8	9	Surface Collection #6	Surface Collection #11	General Surface Collection	General Surface Collection
North	885	918	972.5	853	854	935	1000	840	arroyo	1001.27
East	2893	2915.5	2967	2952	2950	3042	3000	3000		2988.8
Level	surface	2	3	3	1	surface	surface	surface	surface	surface
Artifact type	likely two-hand mano	likely one-hand mano	two-hand mano	one-hand mano	one-hand mano	two-hand mano	two-hand mano	two-hand mano	likely one-hand mano	one-hand mano
Broken?	yes	yes	Yes	yes, corner chipped	no	yes	yes	yes	yes	yes
Weight (g)	187.4	333.9	595.5	990.4	897.5	371.7	372.6	256.6	223.4	432.8
Length (cm)	7.5	5	10.6	11	11.5	7.5	10.5	5.8	5.5	9.6
Width (cm)	6.5	8	9.8	9	9	11	10.3	10.2	9.1	5
Maximum thickness (cm)	2.3	5.3	3.8	4.2	4.1	3.2	2.6	3.3	3.3	4.9
Minimum thickness (cm)	1.8	3.2	1.2	3.7	3.1	2.2	1.5	1.4	2.3	3.8
Burning	none	none	None	none	none	none	none	none	none	none
Material	quartzite	vesicular basalt	quartzite	quartzite	quartzite	vesicular basalt	vesicular basalt	vesicular basalt	vesicular basalt	quartzite
Material hardness	very hard	very hard	very hard	very hard	very hard	very hard	hard to very hard	very hard	very hard	very hard
Color of material	grey	black	Grey	grey-brown	pink-brown	black	brown-grey	black	black	mottled
Exfoliation	absent	absent	Absent	absent	absent	absent	absent	absent	absent	absent
Previous form	cobble	unknown	Cobble	cobble	cobble	unknown	unknown	unknown; natural outcrop	unknown	cobble
Grain size	very fine	very fine	very fine	fine	medium	very fine	very fine	very fine	very fine	medium fine

Sample #	1	2	3	4	5	6	7	8	9	10
Portion of artifact represented	less than half and one face missing	less than half	greater than half	greater than half	whole	less than half	less than half	less than half	less than half	fragment; neither complete length or width
Plan view	irregular	broken/ indeterminate	trapezoid	oval	oval	broken/ indeterminate	broken/ indeterminate	rectangular	oval	oval
Cross-section	unknown	ovoid	triangular	ovoid	ovoid	discoidal	discoidal	wedge	ovoid	ovoid
Longitudinal section	unknown	likely oval	Oval	oval	oval	oval	oval	oval	oval	oval
Relationship of edges	unknown	unknown	unknown	parallel	expanding left	unknown	unknown	unknown	unknown	unknown
Configuration of ends	possibly pointed	unknown	Curved	curved	curved	unknown	unknown	curved	curved	curved
Technology of manufacture	pecked, smoothed, ground	pecked, smoothed, ground	pecked, smoothed, ground	pecked, smoothed, ground	pecked, smoothed, ground	pecked, smoothed, ground	pecked, smoothed, ground	pecked, smoothed, ground	pecked, smoothed, ground	pecked, smoothed, ground
Number of finger grooves	none	none	None	possibly one on the corner	none	none	none	none	none	none
Number of primary use surfaces	one	two	Two	three	two	two	two	two	two	two
Grinding surface preparation, Face A	no pecking visible; surface totally abraded	no pecking visible; surface totally abraded (Face A has two edges that are polished/ highly abraded)	flat side- little pecking, little abrasion	no pecking visible; surface totally abraded	pecking evident; heavy abrasion (polish in the center of the mano face as well as on the ends)	no pecking visible; surface totally abraded	no pecking visible; surface totally abraded	no pecking visible; surface totally abraded	no pecking visible; surface totally abraded	no pecking visible; surface totally abraded

Sample #	1	2	3	4	5	6	7	8	9	10
Orientation of striations, Face A		not visible	reciprocal, perpendicular to the long axis	not visible	not visible	not visible	not visible	not visible	not visible	not visible
Grinding surface preparation, Face B	unknown	no pecking visible; surface totally abraded	triangular side- little pecking, a lot of abrasion	no pecking visible; surface totally abraded	pecking evident; heavy abrasion (polish in the center of the mano face as well as on the ends)	little pecking, little abrasion	no pecking or abrasion, but it is ground and shaped	no pecking visible; surface totally abraded	little pecking, little abrasion	no pecking visible; surface totally abraded
Orientation of striations, Face B	unknown	not visible	reciprocal, perpendicular to the long axis	not visible	not visible	not visible	indeterminate	not visible	not visible	not visible
Other uses associated with mano	after breaking secondary use is a lapstone, passive abrader			abraded surface on corner of mano						

Table D3: Grinding and Pulverizing Netherstones	
Area	General Surface Collection
North	995.20
East	2984.25
Level	surface
Artifact type	metate fragment
Design	likely flat/concave
Broken?	Yes
Weight (g)	2135.7
Length (cm)	11.5
Width (cm)	15.2
Thickness (cm)	8.5
Burning	none
Material	vesicular basalt
Color of material	grey
Surface	1 slightly abraded surface, but no evidence of the trough
Description	the edge of the grinding surface can be seen, though an original edge is likely not present on the fragment

*As the Maxwell Museum of Anthropology does not curate metates, this artifact was returned to the site of San José de las Huertas after it was analyzed.

Table D4: Percussion Tools	
Area	3
North	874
East	2930
Level	2 (10-20cm)
Artifact type	chopper
Design type	expedient
Broken?	yes
Weight (g)	54.7
Length (cm)	6
Width (cm)	3.5
Thickness (cm)	0.7 to 1.4
Burning	none
Material	basalt
Material hardness	very hard
Color of material	black
Previous form	cobble
Grain size	very fine
Portion of artifact represented	more than half
Plan view	rectangular
Cross-section	rectangular
Longitudinal section	fragmentary, but roughly triangular
Configuration of ends	one square; one pointed
Technology of manufacture	naturally occurring cobble that was bifacially flaked on one end
Number of primary use surfaces	one
Description	chopper likely used for light-weight chopping; flaked edge is not straight/square but angled; chopper basically broke in half

Appendix E: Faunal Remains

Table E1: Caprinae Skeletal Element NISP by Area										
Skeletal Element	**Area 1**	**Area 2**	**Area 3**	**Area 4**	**Area 7**	**Area 8**	**Area 9**	**Area 10**	**Cores**	**Total**
Astragalus						4		1		5
Costal Cartilage					1					1
Cranium	3		3		1	2			1	10
Femur			1			8				9
Fibula					1	1				2
Humerus			1			3	1		1	6
Hyoid						2				2
Ishium	1					1				2
Mandible		1			1	4				6
Maxilla						1				1
Metapodial	2	1	2		2	17				24
Navicular Cuboid	1	1				1				3
Occipital		1				1				2
Phalanx	1	1			7	7	2			18
Pisiform	1				1	2				4
Radius	5		3			6	1		1	16
Rib	9		6			14	5	1		35
Rib Cartiledge						1				1
Sacrum						1				1
Scapula						4				4
Tibia	2					9	2			13
Tooth	7			2	5	31	7	3		55
Ulna	1					2				3
Ulna Carpal Triquetrum	1		1		1					3
Vertebra	5				1	7	4			17
Total	39	5	17	2	21	129	22	5	3	243

Table E2: Caprinae Skeletal Element Percents by Area									
Skeletal Element	**Area 1**	**Area 2**	**Area 3**	**Area 4**	**Area 7**	**Area 8**	**Area 9**	**Area 10**	**Cores**
Astragalus						3%		20%	
Costal Cartilage					5%				
Cranium	8%		18%		5%	2%			34%
Femur			6%			8%			
Fibula					5%	1%			
Humerus			6%			2%	5%		33%
Hyoid						1%			
Ishium	2%					1%			
Mandible		20%			5%	3%			
Maxilla						1%			
Metapodial	5%	20%	12%		9%	13%			
Navicular Cuboid	2%	20%				1%			
Occipital		20%				1%			
Phalanx	3%	20%			33%	5%	9%		
Pisiform	3%				5%	2%			
Radius	13%		18%			4%	5%		33%
Rib	23%		35%			11%	22%	20%	
Rib Cartiledge						1%			
Sacrum						1%			
Scapula						3%			
Tibia	5%					7%	9%		
Tooth	18%			100%	23%	24%	32%	60%	
Ulna	3%					2%			
Ulna Carpal Triquetrum	2%		5%		5%				
Vertebra	13%				5%	5%	18%		
Totals	100%	100%	100%	100%	100%	100%	100%	100%	100%

Table E3: Comparison of Species Found at Eight Spanish Colonial Sites							
San Jose de las Huertas (LA 25674)	**Casitas Viejas (LA 917)**	**La Puente (LA 54313)**	**Valencia (LA 67321)**	**Trujillo House (LA 59658)**	**LA 12161**	**LA 9138**	**LA 10114**
1765-1826	mid/late 1700s	1730s-mid/late 1800s	1750-1840	19th century	1700-1750	1750-1800	1800-1850
Species List							
	antelope				antelope		
artiodactlya	lg artiodactlya		artiodactlya		artiodactlya	artiodactlya	artiodactlya
		bear					
					beaver		
bird	bird (domestic)	bird	bird	bird	bird	bird (duck)	bird (raven, mourning dove)
			bivalve				
bos/bison	bison		bos/bison	bos or elk	bos/bison	bos/bison/cervus/equus	
					burro		
	canis (dog)	canis (dog)	canis sp.	canis sp.	canis (likely dog)		canis
					caprinae/deer		
cattle		cattle	cattle	cattle	cattle		
		chicken	chicken	chicken			
deer	deer	deer			deer		
			duck				
	elk						
equus sp.	horse		horse	equus sp.			
			fish			fish	
mammal	small wild	mammal	mammal/bird	lg-med mammal	lg-med mammal	med mammal	med mammal
	pig	pig	pig	pig			
			prairie falcon				
		rabbit	rabbit			rabbit	rabbit
	raptors						
rodent		rodent	rodent	rodent (mouse, squirrel)		rodent (mouse, woodrat, squirrel)	rodent (gopher, mouse)
sheep/goat	sheep/goat	sheep/goat	sheep/goat	sheep/goat	sheep/goat	sheep/goat	sheep/goat
			skunk				
			snail				
			snake & turtle				
				toad			

* (From Akins 2001; Binford 1979; Moore 2004; Sunseri 2009)